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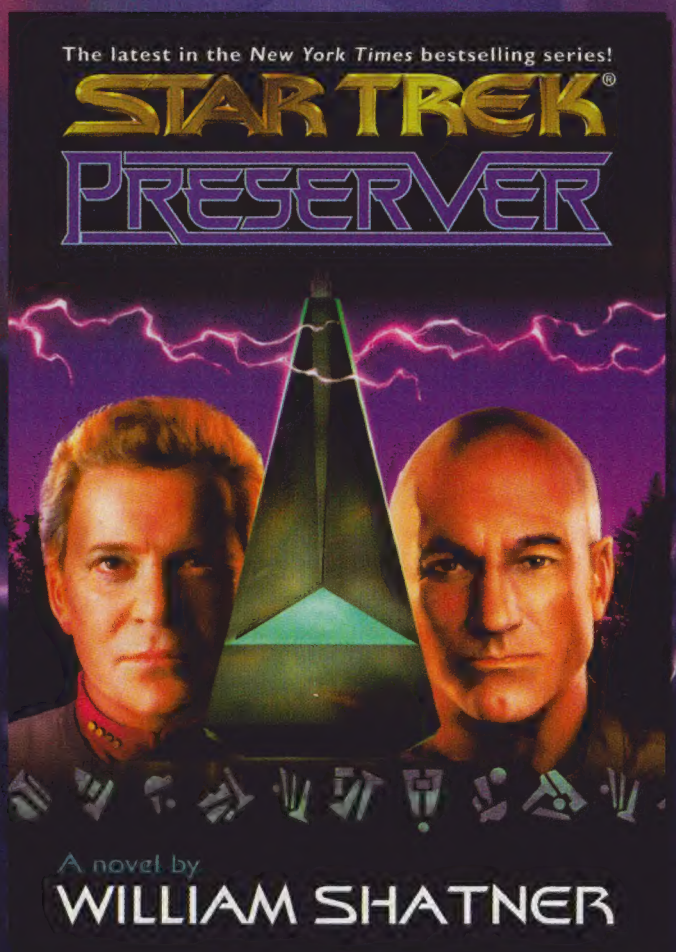


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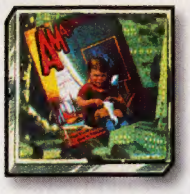


## From the Editor

# Never Better

IT'S AN UNDENIABLE TRUTH: Science fiction has never again reached the heights of creativity and entertainment value it attained in the 1940s and 1950s.

Still on the rise, science fiction is more imaginative and more thought-provoking today than it has ever been before.

Not meaning to sound two-faced, I put forth both of those positions as arguments that could be soundly supported—and that's exactly what Johnny Wilson and I did during a panel discussion at Norwescon 23 in April. Loosely titled "Old Wave vs. New Wave," the session was set up as a discussion of the merits of science fiction through the decades. I took up the "old wave" position, while our esteemed group publisher insisted that newer is better.

For about half of our allotted time, we bantered back and forth. Science fiction, I asserted, was at its best when the genre was relatively new, before all the good story ideas had been mined out. Johnny countered with the feeble claim that the field has never been more vibrant than it is today because of all the brilliant new talent that's rising up. Our cogent observations were occasionally buttressed—or refuted—by some member or another of our very lively and opinionated audience.

Sure, each of us had a point. And that *was* the point: All of a sudden, in the middle of responding to one of Johnny's diatribes, I came right out and admitted that he did know what he was talking about after all. Just like that, we switched sides—and the audience, after taking a few seconds to figure out what was happening, got a big hoot out of the role reversal. For the rest of the discussion, Johnny was the defender of the good old days, and I was the champion of bright new stars and the ever-advancing frontier of knowledge that will keep the potential of science fiction, thankfully, from ever being realized.

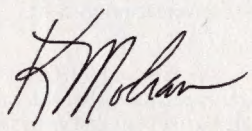
But for that switch (which we had planned, of course), I wouldn't have had a chance to say how I really felt about what's happening in SF today. I do believe that the good old days were a tremendous time in science fiction, and anyone who reads only the stuff that's coming out today is seeing just a part of the wide spectrum of SF. Be that as it may . . .

We are living in the best time ever for new ideas and new storytelling techniques in science fiction—and I believe that statement will be true every day for the rest of my life. SF is getting better as it gets older.

Should the human species ever begin to stagnate creatively and technologically, then and only then will it be conceivable for SF to slide back, to lose some of its edge. But as long as we keep learning, and keep desiring to learn, science fiction writers need not fear running out of ideas, and science fiction readers don't have to worry about running out of stories to read.

Say what you will about the quality of a particular unremarkable novel or a specific sleep-inducing short story, the best science fiction will stand the test of time. Just as is the case now with the classic literature of centuries gone by, even when the concepts of today's SF are outmoded and obsolete, the stories themselves will survive.

Good-bye, good old days. We'll never forget you, and we might even come back for a visit now and then. But the future is waiting, and the future is where we must be headed.



KIM MOHAN
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EDITOR-IN-CHIEF

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PRODUCTION MANAGER

**BOBBI MAAS**
ASSISTANT PRODUCTION MANAGER

**BOB HENNING**
ADVERTISING SALES MANAGER
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**PIERCE WATTERS**
CIRCULATION DIRECTOR

**DAWNELLE MIESNER**
CIRCULATION ASSISTANT

NORTHEASTERN ADVERTISING REPRESENTATIVE
**SCOTT BUCHMAYR**
BUCHMAYR ASSOCIATES
137 ROWAYTON AVENUE
ROWAYTON, CT 06853
PH 203-855-8834
FAX 203-858-9138
<SBUCHMAYR@WORLDNET.ATT.NET>

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## Dispatches

# Happy to Hear It

"Is it so hard for us to believe that we might be alone?"

*Dear Mr. Mohan,*

As a longtime fan of L. Ron Hubbard's novel, "Battlefield Earth," I really enjoyed Amazing #601; the cover was spectacular and Mr. Herndon's exclusive coverage was excellent. I can't wait to see this film!

Also, to extend kudos to Steve Miller for his accompanying "Game Space" article, "Roleplaying in Battlefield Earth," which offers a very thorough overview of the story for anyone who hasn't yet read Hubbard's book. From the myriad character and plot details provided, it's obvious Mr. Miller certainly has!

Keep up the good work!

REX W. LAYTON
*Lapel IN*

### A Longtime Amazing Fan

*Dear Kim,*

I read *AMAZING* number 600 from cover to cover. It was great. I give away my age by saying that I was only a little into "Man in the Icebox" #300 when I realized I read that story in the original issue. I missed issues 400 and 500, but I have returned as a loyal fan.

I look forward with great anticipation to your Diamond Jubilee issue next year when *AMAZING* turns 75.

*Sincerely,*
CLARKE LARSON
*Holladay UT*

### He Wants to Be Alone!

*Dear AMAZING Stories,*

Finally a voice of reason amongst all this "life on Mars" baloney we see in movies and television this year. Dr. Bova's observation of life (or should I say the lack of life) on Mars is a welcomed beacon of sanity for those of us who agree that we are looking desperately for something that we *want* to be there, but simply isn't.

Why do we humans need to know if there is life out there in the Universe? Is it so hard for us to believe that we might be alone? For as long as humanity has been alive, we have dreamed that there is something other than ourselves in this vastness of space. Whether in the form of cave drawings or ancient lore, we have always sought to explain why we are here and why we are alone on this Earth.

I for one, however, would like to believe that we are alone. What an amazing gift to think that this entire Universe, in all its glory, is simply for us to marvel at. Call me selfish, call me naive, but at least I don't go looking for microbes in rocks just to justify my need to be in some sort of galactic "relationship."

So the next time you spend 5 million dollars to prove to me that there is a molecule on Europa that wants to talk to me, don't be surprised if I laugh and tell you that you are nuts.

And if you do find that molecule on Europa, and it does want to talk to me . . .

Tell it I'm busy.

DANIEL STAHL
*Seattle WA*

### Bradbury Is SF Icon

*Dear Kim,*

Just wanted to let you know that I thought *AMAZING Stories* Spring 2000 issue was one of the best ever! Highly enjoyed the stories entitled "The Laurel and Hardy Alpha Centauri Farewell Tour" by Ray Bradbury, and "A Boost in Time" by Charles L. Harness. Ray Bradbury is an icon in science fiction writing and anything he does is top-notch!

Anyway, keep up the good work, like always, your stories are amazing!

*Sincerely yours,*
PAUL DALE ROBERTS
*Via email*


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Joshua Mertz

machine dreams

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by Paul Di Filippo

# Dog Nose and Tree Mind

## Observations of an Art Junkie on the Future of Art

I AM AN ADDICT OF VICARIOUS EXPERIENCES. Fully half my waking hours are devoted to either producing or consuming canned nuggets of simulated reality. Despite the intrinsic worth and fascination of my own personal life, lived minute by minute in real-time immediacy, I can't get enough of second-hand experiences, whether those of actual people or imaginary ones.

But there's no need for me to be ashamed of my addiction. I share this affliction with the whole human race. In fact, this inherent narcissistic/voyeuristic need to create and consume secondary experiences not actually lived out by the percipient is perhaps the defining mark of any sentient race.

▲ PORTRAIT OF THE ARTIST

*"Close your eyes. Listen. Open them again and listen—not to an accompanying "soundtrack" but to the sound of the page itself."*

[JON HASSELL, 1998]

*—From the introduction of the book* **Option: Click,** *featuring photographs and text by Dave McKean*

Vicarious experiences come in many wrappers. Various classes of nonfiction—from journalism, anecdotes, and informal essays like this one to the most abstruse scientific or philosophical speculations—hold down one end of the spectrum of shared knowledge. Occupying the other end of the continuum of stimulation/simulation are works of imagination whose primary impulse is to create alternate or interpreted realities. Fiction, poetry, theater, painting, sculpture, music, dance, movies, photography. Activities that reconfigure the materials and conditions of the universe in an aesthetic way so as to convey from creator to percipient a gestalt impression of the creator's unique heart/mind/soul.

In short, art.

### Before There Was Even Any Hollywood

This fascination with vicarious experience might at first seem a deadly, decadent, postmodern condition. We've all heard the doomsayers and puritans. Distanced from our "real" lives, they claim, we are held in thrall to "false" sensations, force-fed alluringly glamorous, factitious narratives of no ultimate ethical, utilitarian, or moral import: eye candy and junk food for the mind. Nothing seems to me to be further from the truth.

The unqualified, uncensored pursuit of art and this activity's importance in mankind's daily life—in preserving sanity, attaining happiness (however temporary), boosting our powers of practical invention—have been an integral facet of our species' nature since the moment we became fully human.

Most likely, all art was once solely oral. The practical uses of language, no doubt, quickly led to more fanciful storytelling. But soon the plastic arts must have developed, from cave painting to sculpting to exotic rituals of worship and burial. Commercially untainted, vitally felt, this generously defined practice of art probably extends back millions of years. As Steely Dan once sang, in "The Caves of Altamira": "They heard the call and they wrote it on the wall, before there was even any Hollywood."

Today, of course, art is a big industry. "Entertainment" dominates the U.S. domestic economy and our exports. Whether our current art scene is doing its job in expanding our inner landscapes (or devastating them instead) is a matter I leave to the cultural pundits. Instead, assuming that art of some sort will continue to matter well into the future, I'd rather initiate a value-neutral discussion by focusing on what speculative technological developments might mean to the very shape and contents of the arts.

### New Packages, New Consumers

Right now, art is poised on the verge of exploding into a flock of new forms, thanks to a host of potential inventions, mostly in the bioengineering field. Additionally, wild-card developments farther down the road offer more radical possibilities. These innovations will demand a dictionary of new critical and creative terms, as well as new grammars, syntaxes, and tools of exegesis. Exotic fandoms and venues will proliferate as well, making the future a lively wonderland of art.

I'd like to divide my scattershot speculations into three areas: new media, new senses, and new consciousnesses.

The first area is the most obvious. Just as old media die off (in the clever manner initially described by Bruce Sterling and Richard Kadrey), so are infant media continually born. Chances are good that few artists today are doing fresh work for stereopticons. On the other hand, the first artist of virtual reality has yet to appear (mostly because virtual reality itself has yet to be perfected). In the future, new media will pop up with some regularity—although what I choose to define as media

below might surprise you.

The second and third realms may appear less relevant. But consider: All art is funneled through our senses and apprehended by our consciousnesses. Should our senses become extended or our minds altered, novel art forms will arise to satisfy our new abilities.

It is this area that offers the most startling possibilities. Media have always come and gone, but the human sensorium and brain have remained static for millennia. This explains why we can have a sense of continuity with those pelt-clad ancestors blowing powdered pigments through a reed around their wall-splayed hands. But future engineered mutations might very well render the art of the past inaccessible to our descendents, and vice versa. A sad prospect, but an inevitable one.

And, of course, the three areas interact and overlap. New media might demand new senses, which in turn might demand new cerebral processing routines. In fact, co-evolution will probably prove the rule in the future of the arts, as it has in so much of human history.

**Consider: All art is funneled through our senses and apprehended by our consciousnesses. Should our senses become extended or our minds altered, novel art forms will arise . . .**

## Please Say Hello to My Artwork

Science fiction has discussed new vessels for eternal artistic impulses to some degree. But authors have considered the artistic implications of new senses and new mental faculties less often, if at all.

Virtual reality is the one new medium almost everyone knows. Perpetually hovering on the edge of reification, VR tantalizes with possibilities. As they currently exist, MUDs (multi-user dungeons or online text environments) already represent a novel kind of consensual cocreation of imaginary places. And surely artists are finding fertile ground in the construction of complete "mirror worlds" that eventually might tickle every single human sense. The Tolkien-inspired term of "subcreation" will assume new meaning, as hackers strive to render unique secondary universes in greater resolution and quirkiness. I tried glancingly to depict such a milieu in my story "Streetlife" (reprinted in *Ribofunk*). However, the full artistic potential of VR has yet to be depicted, despite the work of Neal Stephenson in *Snow Crash* and Vernor Vinge in "True Names."

At the opposite technical remove from VR, yet strangely allied, are such constructed playgrounds as Disneyland. From individual fantasy rooms (think Ray Bradbury's "The Veldt") to large-scale environments, the potential future of such micromanaged parks has yet to be written, although John Varley has done astonishing work along these lines in books such as *Steel Beach*. High-tech wonderlands a la Larry Niven's *Dream Park* might very well include temporary mental conditioning to plunge a customer into historical reenactments.

What of unmediated reality? Will the globe's weather ever fall under man's control? If so, then artists of rain and snow, sunshine and lightning, aurora and storm, might flourish. If nothing so dramatic ever becomes possible, then perhaps the smaller art form envisioned in J. G. Ballard's "The Cloud-Sculptors of Coral D" might arise.

Robotics and artificial intelligence are fields where technicians will give way gradually to artists, as lab prototypes become commonplace consumer items. Already, an outfit such as Survival Research Laboratories, with its shows employing destructive mechanical beasts, points the way toward a unique cybernetic creativity. The prospect of other kinds of *tableaux mecaniques*—robot plays, robot sculptures—also looms.

Artificial life and artificial intelligence, besides having practical applications, could lend themselves

▲ **Refined over Time**

*It has been argued that immediate knowledge, our relation to the air, soon disappeared amongst the trees.*

. . .

*The branches whipped the experience and I'm really pleased with the path.*

—*Excerpt from* **Option: Click** *by Dave McKean*

**Every one of our senses stands open to enhancement, with consequences for all art.**

▲ THE ARTIFICE OF THE MASK. *A painted female figure below the man, only visible with invisible light. There you are. The man and the mist and the dust collectors. They're not part of words. The artifice of the world.*

—*Excerpt from* **Option: Click** *by Dave McKean*

to artistic expression. Just as plant- and animal-breeders currently vie to create prize-winning specimens judged in prestigious contests, so too could A-life and AI blossom into juried competitions or solo displays. The most complex digital ecology, or the synthetic personality with the highest rating in the Turing Test Tournament, would surely count as an artistic creation.

And certainly the actual old domains of creativity just mentioned—plant- and animal-breeding—will not go unchanged by exploding technologies. When genetic engineering and cloning become hobbyists' pastimes, all the old constraints of raising prize-winning flowers and cattle and pets will be overturned. Chimeras and transgenic marvels will abound, a Dr. Seuss menagerie, expressions of their creators' aesthetic programs. In this scenario, flesh and blood become merely another medium. And here we begin to tread on dangerous ground, as human genes become part of the common clay. As intelligence levels rise in fabricated beasts, issues of slavery surface. It is not impossible that at some future gallery opening, the distinction between an artist and her sentient artwork will be minimal, and conversations between patrons and loquacious creations will form part of the presentation.

All these media will flourish without the necessity of leaving Earth. But any kind of proletarian space travel opens whole new media. Reduced or zero gravity will alter many old art forms, as testified to by Spider Robinson in his *Stardance* series. Terraforming will entail artistic choices, as Kim Stanley Robinson brilliantly illustrated in his Mars saga. But what of sculpting the asteroids, Saturn's rings, or solar flares? The Solar System a canvas? Why not? Some artists have always thought big. But surely the race in Paul McAuley's *Confluence* series who rearranged all the stars in the galaxy into pleasing patterns visible from their constructed world must represent the ultimate in artistic ambition.

## Do You See What I See?

Let's turn back to near-term prospects.

Every one of our senses stands open to enhancement, with consequences for all art. Arguably, sight is our most important sense. Yet our eyes deal with only a small portion of the electromagnetic spectrum. Extend their receptivity farther, and you change the entire palette of the visual arts. But not only infrared and ultraviolet light become "colors." What of X-rays, radio waves, and cosmic rays? Could permanent varying displays of such high-energy outbursts be crafted for artistic enjoyment? Holograms are just one step below such creations.

And photons are not the only transmitters of energy. What of neutrinos? Could humans be rendered sensitive to these ghostly particles? What would a neutrino image "look" like? And would the first humans with such new senses go classically mad, in the manner of *X—The Man with the X-Ray Eyes*?

Physicists theorize that the force of gravity is transmitted by a particle called the graviton. As it has evolved, the human body is, of course, already sensitive to gravity. An internal sense called proprioception plays a part in delivering feedback about our body's status within the play of gravity. Fish such as sharks possess "lateral lines," organs that deliver information about ambient watery motions. With enhanced proprioception or modified lateral lines, could we detect gravity more overtly, witnessing the spasms of whirling neutron stars? Would the design of roller-coaster rides become more of an acknowledged art form? Would the placement of certain masses in artistic conjunctions be read as art? And what of pulling similar

tricks with magnetic sensing, an ability that birds and bacteria already possess?

Our hearing could benefit from extension also. Subsonic and ultrasonic symphonies await such improvements. But our sense of smell, with its hardwired connections to our emotions, seems to me even more ripe for development. Given the sensitivity of canine nostrils, we might compose "operas" of odors. Despite the facetious tactics of film director John Waters and his "Odorama" experiment, odor tracks might well accompany movies catering to an audience of hyperacute sniffers.

Chefs exhibit an artistry all their own, and gourmets respond accordingly. Amplification of our taste buds seems the most negligible contribution toward strange new art forms, although surely many people would adapt such enhancements for simple daily enjoyment. Finally, we arrive at touch. The Chinese once cultivated the handling of carved and polished jade objects as an aesthetic pursuit. What of a sense of a touch that could distinguish individual molecules, or even atoms? Every surface would be a tapestry of sensation. Nanofabricating invisible structures would make possible a kind of ultra-Braille experience, with seemingly undistinguished objects hiding in a secret architecture of touch. Also, hyperarticulation of our finger joints might promote a kind of gestural art. Already, contemporary sign language has developed grammars and aesthetic conventions all its own. The dance of our descendents' flexible fingers could support a Polynesian richness of meaning. (Again, I dealt very tentatively with this in my *Ribofunk* story "Distributed Mind.")

## The Redwood's Imagination

Isaac Asimov's "Dreaming Is a Private Thing" is one of the more famous stories dealing with a potential new art often imagined in SF: the manipulation of dreams. Should access to dreams—reading them out of the sleeping mind, tweaking them, and writing them back—ever be perfected, the crafters and guiders of dreams (such as Roger Zelazny's *The Dream Master)* will certainly rank as artists.

Telepathy—whether organically or technologically mediated—is another area well explored by science fiction. Narratives or visual images conveyed directly from mind to mind are analogous to the oldest arts of oral storytelling and painting, but delivered through a different medium. More intriguingly, I envision several types of mind modification that appear to remain undiscussed within our field.

Parallel processing is a computer buzzword, but why shouldn't humans also attain such a functionality? Like some kind of van Vogtian dual-brained superman, could we keep two or more independent channels of processing running simultaneously in our altered brains? And if so, then what of experiencing multiple threads of narrative that coalesce at their ends into one spectacular frisson? Rather like being able to listen to and enjoy multiple CDs playing at once, all of which happen to end on the same titanic, Beatlesesque chord.

Consider something I term an "overlay": a wetware-encoded temporary set of perceptions, reactions, and pseudo-memories you could purchase and install to enhance a particular artistic experience. Reverse-engineered from selected individuals, overlays would alter your artistic experience in a predetermined way. "Wearing" the overlay of a member of a different race or ethnicity, you would experience certain artworks with an authentic "otherness." Imagine reading Alex Haley's *Roots* while employing the overlay of an ex-slave. Or viewing Picasso's "Guernica" through the overlay of a war refugee. Such wetware would truly provide vivid moments in another's shoes.

Of course, "transcripts" of "foreign" life experiences would become art forms in and of themselves. A full suite of false memories—an overlay-plus edited down from living subjects or created from scratch—would in many ways provide the purest vicarious experience possible. And although it would certainly be thrilling to don the mind of someone of the opposite sex or someone from another culture, humans would not be the sole providers of such transcripts. Finally, we could break out of our species-specific *weltanschauung* and know what it means to be another kind of mind—perhaps the ultimate subtextual goal of all artistic explorations. Inhabiting the intellects of our pets or of wild animals—of trees, even, granted that some kind of consciousness could be replicated from their fully unriddled workings—would be truly liberating.

And experiencing "alien" minds would no doubt lead to the discovery of new emotions. Are you aware of the German word *sehnsucht*, or the Portuguese word *saudade*? Both terms refer to a kind of melancholy nostalgia or ache, half painful, half pleasurable. The fact that other languages identify emotions for which we have no single English word indicates the range of feelings yet to be catalogued and evoked. What does a redwood feel upon attaining its fifth century of existence? Someday we might be able to answer, if not in words, then by handing a friend a plug-in module off our library shelves.

This is a day I, as a hard-core and inveterate consumer of art, hope to live to see.

◀ ABOUT THE AUTHOR

*Paul Di Filippo's writing career is entering its twenty-fourth year. Paul's relationship with* AMAZING Stories *began in September 1987 when "Kid Charlemagne" was published in issue 536. His novel,* Joe's Liver, *will be released later this year by Cambrian Press. His short story collection,* Lost Pages—*which includes "Campbell's World" and "Linda and Phil," also published in* AMAZING—*received a special citation from the Philip K. Dick Award judges this year. His latest novel is* Joe's Liver, *from Cambrian Publications* <www.cambrianpubs.com>.

▼ ABOUT THE ARTIST

*Dave McKean was born in 1963 and lives and works in Kent, England. His many accomplishments include illustrations and designs for all the covers and book collections of Neil Gaiman's* Sandman *series.*

*He has produced photographs, illustrations, and video for Kodak, Sony Playstation, Smirnoff, and more. He has also directed two short films,* The Week Before, *and* N[eon], *and has produced over a hundred CD covers for artists including the Rolling Stones and Tori Amos.*

▲ ABOUT THE BOOK

*The illustrations accompanying this essay appear in the book* Option: Click

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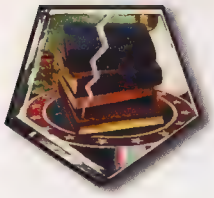


**Scientifiction** by john c. bunnell

# King of the Wild Frontier

## New SF Explores Uncharted Territory

THE "WILD FRONTIER" has moved outward in more than one direction since the Sunday nights as a youngster when I watched Davy Crockett wrestle b'ars and outwit adversaries ranging from burly river rats to oily Congressmen. William Shatner and Patrick Stewart have told us to seek it in outer space. Roy Scheider would have us look for this frontier in the depths of Earth's oceans. If you believe George Lucas, you'll find it in a galaxy far, far away. Or if you go by the latest reports from Sunday night television, it may be on the other side of a magic mirror in New York's Central Park.

The truth, of course, is that the real "wild frontier" is the one behind our own foreheads—and the most interesting selection of vehicles to take us there awaits us at our favorite bookstore.

### Frontier Earth

Bruce Boxleitner
Ace (hc, 322 pp.)
0-441-00589-6 $21.95

One might reasonably suspect *Frontier Earth* of being in the class of novels published as potential movie vehicles for the well-known Hollywood actors whose bylines they carry. But while the book clearly plays to Bruce Boxleitner's strengths as a rugged Western hero with SF credentials, it's also a smoothly sketched action yarn that weaves itself with moderate skill onto the map of the authentic American frontier.

The ingredients are straight out of dime-novel territory. Our hero is ruggedly handsome and expert with a Colt .45, but he's suffered a convenient bout of amnesia and has no idea who he is or what he's doing in Tombstone, Arizona. The young widow who takes him in as a boarder is, as you'd expect, a budding feminist with medical ambitions. And all this unfolds just in time to serve as lead-in to the most famous gunfight in Wild West history.

But the feuding Earps and Clantons are the least of Macklin's problems—there is a pair of deadly aliens on his trail, advance scouts for a species hoping to set up a planet-sized livestock operation on Earth with humanity populating the feedlots. It's a pulp-adventure plot through and through, complete with cowboys, Indians, and a saloon girl or two.

What saves the novel is its crisp, sure-handed execution. The tone is brisk, avoiding melodrama and pretension alike in favor of a matter-of-fact narrative style that neither takes sides nor apologizes for itself. And the integration of the O.K. Corral shootout into the tale is ingeniously stage-managed, allowing the SF plot to influence familiar events without unduly warping real-world history. Students of the 1881 incident undoubtedly will quibble over one detail or another, but on the whole the historical material appears cogently and clearly developed. The science-fictional elements are likewise understated, with solid action and character interplay rather than special effects driving the story.

The final question readers of *Frontier Earth* may ask is who

**From Actor to Creator.** Babylon 5*'s Captain Sheridan, Bruce Boxleitner, penned* Frontier Earth, *a daring SF legend set in the Wild West.* JACKET ILLUSTRATION BY CLIFF MILLER

should get primary credit for the actual writing. Boxleitner's acknowledgments give credit to William Keith and Ed Gorman for "invaluable help with the manuscript," which is not infrequently a code-phrase for "writing the book" in packaging circles. At the same time, though, the Macklin character fits Boxleitner's own range unusually well, and it's hard to imagine a close colleague of novelist and *Babylon 5* czar J. Michael Straczynski playing too fast and loose with professional credits.

Whatever the novel's literary antecedents, though, it's a solidly told adventure yarn with a clear hook set for future adventures. And it would most likely make a pretty good movie, too.

## Jumping off the Planet

David Gerrold
Tor (hc, 285 pp.)
0-312-89069-9 $19.95

▼

In the not-too-distant future where *Jumping off the Planet* takes place, humanity desperately needs a frontier—economic and population-driven considerations are poised to deal a deathblow to Earth-bound civilization. But where nineteenth-century pioneers could pack up their belongings and head West without too much difficulty, the average family in Gerrold's world is confronted with a problem: A ticket "up the Beanstalk" to one of the emerging space-based colony ventures is wildly, prohibitively expensive. Even if you can afford to buy one, you'll probably have to sell yourself into indentured servitude to pay your living expenses once you've arrived.

How, then, does a long-divorced, perpetually broke musician manage to score tickets to the Moon not just for himself, but for his three sons as well? That's what barely-teenaged Chigger wonders when his father abruptly springs the trip on his offspring, and the chief trouble with the novel is that Gerrold never provides a convincing answer.

That's immensely frustrating, because the jacket quotes are dead on target when they compliment Gerrold for fantastic development and description of a complicated but just-plausible SF construct. The literal centerpiece of the book is the Beanstalk, an epic-scale elevator system that runs from Earth to Luna, held in place by cables of nearly unimaginable proportions. It's not a wholly original idea, but Gerrold takes the concept from the realm of exotic SF, gives it utterly realistic rivets and engineering specs, and shows the device as a working, self-sustaining system.

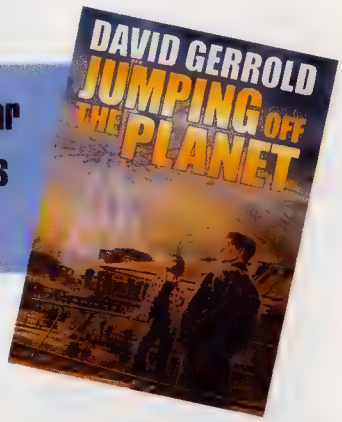
At the same time, he doesn't get bogged down in techno-jargon. Instead, he keeps his story squarely focused on Chigger and his believably dysfunctional family, neatly balancing the niftiness of the elevator trip with the all-too-convincing details of sibling squabbles and parental infighting. Chigger (actually Charles) is arguably a very precocious thirteen-year-old, at least to judge by his first-person narration, but readers are likely to be a long way into the novel before they start worrying about the matter.

The trouble is that, while *Jumping off the Planet* has a spectacular setting and convincing characters, it's woefully short on tension and suspense. The problem arises on two fronts. First, never is there any serious danger of our heroes being dragged off the Beanstalk and back down to Earth once they're aboard; it's occasionally hinted at, but never do we see evidence that this is a genuine threat. Second, Gerrold's effort to stage a McGuffin-hunt plot is so thin that calling it half-hearted is generous. Readers will spot the McGuffin long before Chigger does, and Chigger spots it subconsciously long before figuring out just what it is. Yet the opposing McGuffin hunters don't even come close to recognizing their target, let alone making any effort to lay hands on it—a degree of obtuseness that makes the Three Stooges look like Nobel laureates by comparison.

**While *Jumping off the Planet* has a spectacular setting and convincing characters, it's woefully short on tension and suspense.**

The effect is essentially to reduce the novel to a travelogue, and while it's generally effective as such, the mismatched craftsmanship gives the book an odd and distracting quality. The problem is that the McGuffin's weakness undercuts the logic whereby Chigger and his companions can afford the trip—and that relegates their presence on the Beanstalk to a matter of authorial convenience rather than a plot point justified by events in the story. Essentially, the thriller component seems to have been invented to allow Gerrold to pull several million dollars out of a hat, and once that's done, he tosses the hat aside like Bullwinkle J. Moose after a failed magic trick.

One is reminded of the James Lowell epigram describing Edgar Allan Poe: "Three-fifths of him genius, and two-fifths sheer fudge."




David Gerrold's latest novel suffers from just this degree of split personality, making a straightforward buy-or-avoid recommendation impossible. Fans of idea-driven SF will sigh with pleasure, fans of careful plotting will grind their teeth—and fans of both are liable to need counseling afterward.

## Stardoc

S. L. Viehl
Roc (pb, 394 pp.)
0-451-45773-0 $6.99

▼

Kevarzangia Two is way out on the perimeter of human-explored space, a thinly settled world whose spaceport is a crossroads and trading nexus for dozens of races, of whom humanity is by no means the most technically advanced. So why is one of Earth's most talented young doctors serving as a staff medic in Kevarzangia Two's spaceport emergency clinic, where supplies are constantly understocked and patients are frequently lined up around the block?

S. L. Viehl provides several

answers in *Stardoc*, the most intriguing of which is that Dr. Chorijo Grey Veil is rather more than she appears. Though raised as the daughter of eminent physician Joseph Grey Veil, her relationship to Earth's most respected medical researcher is actually somewhat different. As a result, Chorijo has deliberately put as much distance as possible between herself and her sometime parent. That may not stop the senior Grey Veil from reclaiming his offspring—but her father's machinations may be the least of her problems. At least one of the senior medics at Kevarzangia's FreeClinic is trying to sabotage her work, she's never so much as seen two-thirds of the species she's called on to diagnose and treat, she may be the cause of a plague threatening to wipe out the entire colony, and she's caught between the intimate attentions of a supremely annoying human diplomat and an unnervingly attractive alien mercantile agent.

The cover testimonials make it clear that Viehl has pitched her novel at least in part toward readers of romance as well as SF audiences—which is interesting, because the romantic plotlines are neither predictable nor preeminent, though in fact Viehl handles her characters credibly and with wisdom. Instead, the novel divides its primary focus between Chorijo's medical challenges and her stormy relationship with her father. The resulting juggling act occasionally wobbles and stumbles; the resolution of Chorijo's official legal status is cursory at best, and a subplot involving a race of sentients kept as pets is never quite paid off. Viehl—herself a medical professional according to her author bio—is at her best with the medical scenes, which display a mix of convincing atmosphere and considerable inventiveness.

The other reservation is that *Stardoc* is first in a series—though at least it's clearly labeled as such at book's end—and though the conclusion ties off several major plots, the story doesn't so much end as pause for breath. Indeed, Viehl more or less begins the second adventure in the last few pages of the first, emulating both Scheherazade of *Arabian Nights* fame and any number of Saturday afternoon movie serials. It's a potentially irritating tactic, but given a sufficiently well-told story, it's also often very effective. And Viehl's tale is spun skillfully enough that she should have little trouble attracting readers to the sequel.



## Oceanspace

Allen Steele
Ace (hc, 394 pp.)
0-441-00685-X $21.95

▼

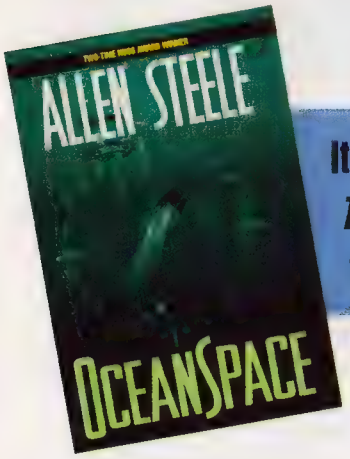
When the *Seaquest* TV series was first announced, viewers were promised literate science fiction adventures set in Earth's true final frontier—"for beneath the surface lies the future." In many ways, Allen Steele's *Oceanspace* attempts exactly the same mission. Yet eerily like *Seaquest*, Steele's novel suffers from a bad case of split personality, demonstrating that it takes more than a good idea to keep a good story afloat.

Steele avoids the temptation faced by his TV predecessors to sacrifice scientific values for the sake of adventure. Indeed, there are no less than three intelligently speculative plot threads in the narrative: The primary setting is an impeccably detailed oceanic research facility, the main mission for our heroes is a search for a previously unknown sea serpent, and a side intrigue involves corporate competition for undersea mining claims. Each of these elements is presented with authoritative thoughtfulness; it's not hard to believe that something like the *Tethys* station will be up and running by the time 2011 rolls around.

Steele also deserves credit for creating realistic, well-developed characters, from the various scientists to a teenage visitor to a determined journalist. One especially notable character-driven subplot involves the reporter's persistent attempts to get around *Tethys*'s security protocols; Steele neatly and cheerfully turns techno-thriller cliché on its ear where Leslie Sun is concerned.

Unfortunately, the problem with *Oceanspace* is ultimately the same one that sank *Seaquest*—its focus is too fragmented to hold the story together. The various SF plots compete for attention both with each other, with the journalistic subplot, and with a family-crisis subplot involving two of the scientists and their visiting teenaged niece. The result is that our look at the research station is all too brief, the quest for the sea serpent gets only maddeningly vague results, and as much as we may like the various protagonists, we get too little chance to really see them reach their potential.

That's frustrating, because the compelling setting Steele creates is chock full of potential for the best technically literate SF. All the ingredients are there; it's simply that Steele hasn't managed to integrate his material to its full effect. One hopes that he'll revisit this milieu in future novels—and that those prospective sequels are more tightly focused. *Oceanspace* is readable as it stands, but a sufficiently well-tracked sequel could boost Steele from solid mid-rank status to a place near the top of SF's talent pool.




**It's not hard to believe that something like the *Tethys* station will be up and running by the time 2011 rolls around.**

I've been a fan of the Honor Harrington military SF adventures since the series made its debut. But with his new book, David Weber may have reached the point where his series has become *too* successful.

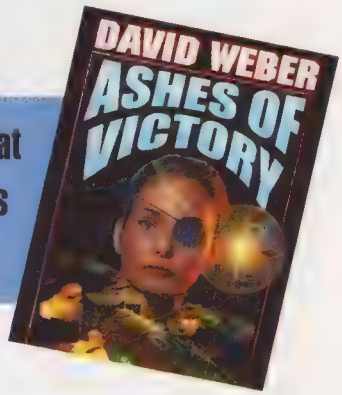
## Ashes of Victory

David Weber
Baen (hc, 559 pp.)
0-671-57854-5 $24.00

*Ashes of Victory* persuasively continues the future history of Honor Harrington's Manticoran Star Empire and its war with the People's Republic of Haven. However, Weber moves events along so briskly that he passes up several chances to give readers the really first-rate SF novel they have a right to expect.

It's telling that the events of this latest book occur over a span of several years. Weber might be forgiven for compressing the account of Honor's long and difficult recovery from the injuries she's suffered during the last couple of books. But he appears determined in this latest novel to bring the Havenite war to a climax—even if it means giving only scant attention to one of the most significant years of Honor's life, and even less stage time to a key secondary plot involving human communication with the endlessly fascinating treecat species that shares Manticoran space with humanity.

**Weber moves events along so briskly that he passes up several chances to give readers a really first-rate SF novel.**




That's a twofold mistake. The story of Honor's year as commandant of the military academy on Saganami Island deserves a novel of its own—a book that would have let Weber focus both on the evolution of Honor's character and on the students and fellow officers with whom she interacts. And the issue of treecat language, a *fait accompli* in the novel Weber actually writes, ought to be yet another full-length story. Weber's shorter works have shown that, given the chance, he can write cultural-conflict SF as convincingly as he presents Honor's military adventures—and the tale of how treecat and human finally learn to communicate fully is sufficiently important to Weber's universe that it deserves much more attention than it gets here.

The real kicker is that Weber moves so briskly through events that he doesn't even do justice to the military or political developments. In particular, short shrift is given to the rise and fall of Havenite military commander Esther McQueen, and other key Havenite personnel get too little attention for the roles they eventually assume—notably "tac witch" Shannon Foraker, whose single one-word line is eloquent (and welcome) but comes out of nowhere. And on yet another note, Weber studiously ignores the simmering romantic tension he's previously established between Honor and fellow officer Hamish Alexander, despite moving all other facets of Honor's life forward at blistering speed.

Make no mistake: *Ashes of Victory* is still eminently readable as military future history. But it's far from its author's best work, and if David Weber isn't careful in future installments, he's in serious danger of killing the series that lays the golden eggs. That would be a shame on several levels, because Weber at top form may be a better novelist than either he or his readers realize.

### About the Author

*John C. Bunnell has been reviewing SF and fantasy professionally since 1984, and still watches too much TV on Sunday nights. Material to be considered for review in this space may be forwarded to him at 6663 SW Beaverton-Hillsdale Hwy., PMB 326, Portland, OR 97225-1403.*

**AMAZING STORIES ONLINE**

*by Johnny Wilson, Group Publisher*

### Babylon 5: Legions of Fire Series

Book 1: The Long Night of Centauri Prime
Peter David
Ballantine/Del Rey (pb, 280 pp.) 0-345-42718-1 $6.50

*Legions of Fire*, Peter David's latest foray into the literary version of genetic engineering, incarnates an outline by *Babylon 5* creator J. Michael Straczynski into a living, breathing novel. The first book of this mini-story arc featuring Centauri Emperor Londo Mollari, Vir, and other favorites is replete with literary archetypes and allusions. Like an Impressionist painter, David has used light to create a fresh perspective, to help us see the familiar landscape of the human condition as though we'd never noticed it before. Light versus shadow, appearance versus reality, and good versus evil dance through the novel in various shades of clarity and dimness until we finally understand something of the lessons to be learned.

What lessons? We learn that belief can be a powerful tool. We are reminded that faith presented in certain ways can undermine our humanity and become destructive instead of redemptive. We learn that friendship, though a powerful force, is often subverted through human selfishness, ambition, or the desire for self-preservation. Yet, we find that friendship can be the redemptive countermelody that fills out the weak orchestration of our subjective perceptions. We need friends, even though they may hurt us. Most important, we learn that even when we think we are wielding power, we are not immune to the gospel according to Bob Dylan: We have to serve somebody.

Read the full review of this novel online at www.wizards.com/amazing

BY J. MICHAEL STRACZYNSKI

BABYLON 5

# Space, Time, and the Incurable Romantic

***Much to his own surprise,*** Marcus Cole breathed deeply.

His first conscious thought was *I'm alive,* followed closely by *Why am I alive?*

He blinked open his eyes. Bright white light stabbed at him, and he closed them again.

"Dim the lights," someone said.

He tried a second time, and managed to keep his eyes open. He was in an operating theater—of that much he was certain. Several people stood over him, and as he focused he recognized their distinctive bone-crests. *Minbari.* Two of them were dressed in physician's gowns, while the third wore the cloak and pin that identified him as a Ranger, same as Marcus, serving in the shadows, serving the Alliance.

He struggled to recall how he had gotten here. He remembered learning that Commander Susan Ivanova, who had been mortally wounded before his eyes while they were serving on the *White Star* during the Earth Civil War, was dying. Against orders, he had rushed to her side at *Babylon 5.* There he had used an alien device designed to transfer life force between two individuals to bring her back from the edge—by giving her his own life force. He did so even knowing the price he would pay.

*I love you,* he had said.

And there, in her arms, he had died.

So where, and *why,* the hell was he?

ILLUSTRATION BY CLIFF NIELSEN

He struggled to sit up, but his arms shuddered and collapsed beneath him.

"Try not to move," the head Minbari physician said.

"My arms—"

"Atrophied. You haven't used them in . . . well, in a very long time."

"How long?"

"We'll begin rehabilitation at once, artificially stimulating them around the clock, and that should help get you back to normal soon, but—"

"*How long?*"

The physician hesitated, looked to the Ranger behind him. "Tell him, Tranall," the other Minbari said. "He has been trained as *Anla-shok.* He is a Ranger. He can bear the burden."

The physician nodded and turned back to Marcus. "You have been in cryonic suspension," he said. "Commander Ivanova ordered your body frozen in case one day science might find a way to restore you to life."

"Presumptuous, I suppose, but that's always been her way," Marcus said. "It's getting so a man can't even die heroically without someone spoiling all the fun. I'll have words with her about this, just you wait."

The two Minbari exchanged a curious look.

"Speaking of Ivanova," Marcus said, "where is she? I can't imagine she'd miss this."

"I'm afraid she is dead," the Ranger said.

Marcus struggled for words. "I don't understand. I saved her. . . . I mean, I *did* save her, didn't I? The device *did* work, didn't it?"

"It did," the Ranger said. "That is a historical fact. But you must understand: By the Earth calendar, the event you are describing took place nearly three hundred years ago."

**Over the coming weeks, as Marcus recovered,** he learned all that had happened in the years following his cryonic suspension. The information was given out piecemeal, when the doctors felt he could handle it.

Susan Ivanova had become captain, then continued up the ranks, becoming an Earthforce general and then, finally, *Anla-shok na,* head of the Rangers under the leadership of Interstellar Alliance President Delenn of Minbar. She had served in that capacity for the rest of her life, expanding the roster of membership in the *Anla-shok* to include representatives of every member world, and instituting a system of honor and self-sacrifice that was unparalleled to this day. He was told that over half a dozen statues and memorials to her work had been erected in this one city alone. She had never married, choosing instead to dedicate her life to her work.

After *Babylon 5* had been decommissioned, she arranged to have his cryotube shipped here. According to Tranall, from time to time she visited him in his long sleep, visits that the medical staff still whispered about. Some even said that she used to talk to him as if he were still alive. "But there are no records, anywhere, of what she said," Tranall explained.

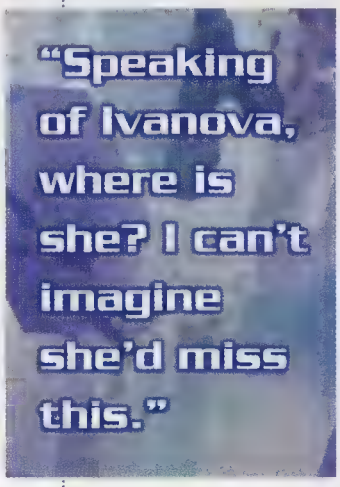
In the last years of her life, she gave orders, supported by Delenn, that Marcus's body was to be kept intact and in cryonic suspension for as long as it took to find a way to restore him to life.

It had only happened now, three hundred years after the fact, because a recent expedition to the Rim had found the ruins of the alien civilization that had produced the energy transfer device. Among the ancient documents and records, they had at last found the information they had been searching for.

"And what am I supposed to do now?" Marcus asked at the conclusion of his final briefing.

"What they had all wanted for you," Tranall said. "Go on living."

"How many others know about this?"




"We have kept your revival a secret. We thought it would be better that way. It will give you time to adjust without the press of others demanding your time. The chance to talk with someone who actually knew President Sheridan, and Delenn, and *Anla-shok na* Ivanova, is . . ." Tranall's eyes fixed on a distant point, then finally returned to Marcus. "There are no words. But we shall respect your convalescence. After that, of course, we will have enough questions to fill an ocean.

"And you need not worry about your future or your livelihood from this point on," he continued. "In anticipation of this moment, a trust fund was set up long ago. There are enough credits in that account to serve the needs of several hundred men for the rest of their lives. You will have everything you need."

Marcus only nodded, and didn't say, *No, not quite everything.*

**When he was strong enough, Marcus left the** hospital and walked out into the Minbari capital city of Yedor. Little had changed in the three hundred years since he had last walked these streets. The crystalline spires and towers were as coldly impressive as they had always been. More humans and other aliens were out on the streets than he had ever seen before, but that was understandable since Minbar was now the seat of the Alliance.

The Rangers had become an interstellar legend of their own, their honesty and objectivity heralded on hundreds of worlds. If a Ranger was called in to arbitrate a dispute, his or her decision was utterly unimpeachable. And when force was needed to resolve a dispute, the Rangers were a feared power. But they were invoked only when absolutely necessary to preserve life, never for political or personal gain.

*I guess it was worth it after all,* Marcus thought, but found himself distant from it all, feeling like a reverse historian; he saw consequences that proceeded from events he knew, but he had little personal involvement with them.

*Everyone I knew is dead. So where am I supposed to fit in with all this?* He supposed he could rejoin the Rangers, catch up with all the latest training, but it just wouldn't be the same. When he had first joined up, it was a novelty, the revival of an ancient tradition for the purpose of fighting an impossible war. Now it had become status quo, had become everyday. The great war was long over, it was ancient history.

As was he, Marcus ruefully decided.

After several hours, his wanderings took him to Memorial Park, where the bodies of heroes, dignitaries, Rangers, and former Alliance presidents (at least those who hadn't mysteriously vanished) had been interred.

*Yeah, like this was an accident,* he thought. He checked the directory and found what he knew he had been searching for, even though he had not acknowledged it—even to himself.

Susan Ivanova's memorial rose up before him in a tower of crystal and stone whose layers wove together in delicate patterns that caught the cool white light of an ordinary day and broke it into a million brightly colored pieces. *How utterly appropriate a metaphor,* he said to himself.

He entered the memorial, and his breath caught in his chest as he saw her face floating in the air above the quartzlike crypt that contained her body. *Just a memorial holo-image,* he told himself, but it was her face from the days he had known her, and he could not look at it without pain.

He stepped closer, her gaze following his movement. "Hello, Susan."

He got no reply.

"Why'd you do it?" he asked, sitting on a bench beside the crypt. "I mean, if you hadn't done it, we'd be together by now, in whatever passes for an afterlife these days.

"Of course, I don't believe in an afterlife, and you know that—*knew* that—so I suppose that could've had something to do with it." He shook his head. "You always thought you knew better than everybody else. Well, fine. First you were alive and I was dead, and that wasn't right at all, so now *I'm* alive and *you're* dead. Yes, this is *such* a better solution, isn't it? You ask me, I think you did it for revenge. If you had to go through those years by yourself, then by God you were going to make sure I did the same, even if that meant hiring people to chase my body clear across infinity."

He looked up at her face. It hadn't changed.

*On the other hand, maybe you actually loved me,* he thought, but could not bring himself to say. Doing so felt presumptuous, here in this place.

He wondered what she had said to him, all those years when he was in frozen sleep. Was she telling him that she missed him? Or rebuking him for being stupid? He would never know.

He thought of her, sitting alone for all those years. *Did you do it for me? Because you missed me or because you felt guilty? It's not fair. I knew I was on a fast track to a bad death ever since my brother died—how could I go on knowing that I'd failed him? I couldn't fail someone again. Especially not you. I wanted you to have one more chance to find happiness. And you didn't. You had the work, but you* always *had the work, that's not the point. It's not right that you were alone. It's not right, it's—*

"Hello?"

Marcus sat up, startled at the voice that echoed in the memorial. A Minbari stood in the doorway, clutching a handful of flowers.

"I'm sorry if I alarmed you," he continued. "Do you mind if I—"

"No, please, go right ahead."

The Minbari nodded and moved to the front of the crypt, where he placed the flowers in a waiting receptacle.

"Who sent them?" Marcus asked.

"Sent?" The Minbari shook his head. "You are a Ranger, by your clothes, yes? I thought you would know."

"I've been out of town for a while."

"Long ago, President Delenn ordered these placed here every day. The words of Delenn are still followed, and will always be followed." He arranged them carefully, then stepped back. "Do you know much of Ivanova?"

"A bit," Marcus said.

"Then you are a follower of her ideas?"

"You could say that."

"Then may I assume you have been to the Voice?"

Marcus studied him. "The what?"

"The Voice. Shortly before Ivanova passed away, a picture was taken of her mind. Well, it's not really her mind, not technically . . . it's a full study of all the neural pathways and memories and information she held at the time, encoded and preserved for future historians, physicians, and scientists. I think the nearest human equivalent would be a life mask, but this is an impression, a picture, taken of a person's mind.

"It can't create new thoughts, obviously, because a mind needs a soul for creative life to exist, but it's a wonderful resource. I've only been there once myself, but I found the experience most . . . exhilarating."

Marcus paused for a long moment before asking the question he knew was about to change the rest of his life.

"Where can I find her Voice?"

**When Tranall had said that all his monetary** needs would be met many times over by the trust fund, Marcus had not been paying a great deal of attention. Now he had a reason to find out just how much was there.

He was, even by his standards, suitably impressed.

Next came the purchase of a jump-capable private ship. He was surprised at how small they had gotten. In his time, the *White Star* had been the smallest ship capable of jumping into hyperspace without the aid of a jump gate, and even that still required a fairly substantial crew. Now they came in one- or two-person flyers that were a fraction of the size of the *White Star.*

Ivanova's Voice was stored with the Voices of several hundred other historical figures at the Sirius Nine Neural Archives, operated jointly by the Earth Alliance Historical Society and PsyMed, a pharmaceutical megacorp based on Centauri Prime.

The Archives had been built there twenty years ago as a tax write-off by PsyMed. Sirius Nine was a small colony with little to offer tourists or business travelers. It needed something with prestige to invite visitors, and the Neural Archives brought academics from dozens of worlds.

Marcus knew the place well. Long ago—two years ago by Marcus's counting, much longer in the real world—it had boasted a significant underground commerce. Anything could be had, if the price was right, and you knew which people to ask.

The people he knew were long gone to dust, but as Marcus programmed his flyer for Sirius Nine, he was confident that even if the old rat holes had been paved over or cleaned up, new rat holes had appeared to replace them. They always did.

And Marcus was an expert at finding rat holes.

**"You were looking for me?"**

The Drazi who sat across from Marcus in the seedy under-

ground bar glared at him from deep-set eyes in a dark green face that betrayed his race's reptilian origins. The Drazi were a short-tempered people and far from the brightest. In that respect they had changed little since the last time Marcus had dealt with them, but it would take more than three hundred years to make even a dent in Drazi social evolution. *Give them another million years, and I have every confidence they'll work out that whole salad fork thing.* But Farn came highly recommended. For a Drazi, at any rate.

"I understand that you and some of your associates have achieved . . . well, let's call it unauthorized access in most of the colony buildings," Marcus said.

"Hm."

*And he's such an astonishing conversationalist,* Marcus thought.

"So, what can you tell me about the Neural Archives?"

The Drazi snorted. Unfortunately, when Drazi snorted, it came out their cheek flaps and sounded utterly disagreeable. "Nothing of value there. Old papers. Old voices. Nothing to steal. Nothing to sell."

"And how's security in there?"

The Drazi's gaze didn't waver. "Nothing to steal," he repeated. "Nothing to sell."

"Is that Drazi for 'In my professional view they have very little security because the Archives are of only technical and academic interest'?"

"Hm," the Drazi said.

"Good," Marcus said. "In that case, I have a business proposition for you."

**The Neural Archives used the very latest holo-**graphic crystal storage technology. Three hundred years ago, a standard-sized datacrystal could hold enough information to fill several libraries. Now, with pulse-burst enhancement and tachyon dual-layering, it was possible to store the accumulated memories, thought patterns, neural data, and synaptic pattern relays of a human being, from birth to the point of recording, on just seven crystals.

The problem was that several thousand such crystals were arranged in neat, tidy rows in the room beyond the holographic display screen that pulsed softly in front of Marcus.

The Drazi had gotten him into the maintenance room through a service entrance whose night access codes had not been updated in some time. The next security patrol would come this way in less than twenty minutes.

All the datacrystal groups had been numbered in sequence on the control panel in front of him. But without a key to connect the numbers with the names involved, it could take hours or even days to find the right seven crystals.

The Drazi who had accompanied him this far nodded at the rows of crystals. "Take and go," he said. Marcus had managed to convince Farn that there was some small value to the minerals that went into making the datacrystals. The Drazi thought it was a great deal of effort for very little reward, but it was simpler than explaining what Marcus was actually after, and why.

After all, there were moments when he didn't quite believe it himself.

*How do I find her in all this?* he wondered, desperately aware of how little time they had. There was no way he could do it by going through them one at a time.

*Then let's hear all of them,* he decided.

He touched the master control, which activated all the datacrystals in the archive. Instantly the room was filled with the sound of a thousand voices, all talking at once.

*I am Shadrala of Narn unless the equation calls for my political expertise was in have good no to sing achieved the ending of—*

The Drazi covered his ears. "Insane!" he said. "They will hear and they will come!"

"Just give me a minute," Marcus pleaded. "Be quiet!"

He listened. He closed his eyes and focused everything he had learned as *anla-shok,* all the discipline, all the rigor, all the pain he had endured, into the task at hand: picking one voice out of one thousand.

Without opening his eyes, he passed a hand over the controls. Several hundred voices went away. He strained to hear.

"Guard coming soon," the Drazi said. "Go now."

"Not yet," Marcus said.

And listened.

*—farther than under the rule of domestication of combat losses were my name is—*

Marcus found his heart was suddenly pounding so loudly that he briefly thought he might lose her. Her voice was barely audible, but it cut through the rest because it was familiar, and because it was *hers.* He would recognize it even if it were drowned in a million voices.

*My name is Susan Ivanova, daughter of Andrei and Sophie Ivanov—*

He opened his eyes. Only one set of seven datacrystals was still glowing in the room beyond where they stood, only one voice still remaining.

*I am Death incarnate, and the last living thing you are ever going to see.*

"We take? We go now?" the Drazi asked.

*God sent me.*

"Yes," Marcus said softly. "We take and we go now."

**The Drazi didn't have a lead on where Marcus** could find his next target, but he knew someone who knew someone who might know someone.

More money went into other hands. When enough of it had gone out, as Marcus had expected, someone who knew someone *did* know someone.

More credits were deposited into the account of the colony's head of security, who looked the other way as Marcus took off in his personal flyer, now programmed for a small research station in Brakiri space.

He checked his finances en route. He was reasonably sure that he had just enough left to finish the job, but he couldn't be absolutely sure, since none of the contemporary interstellar guide books indicated how much it cost these days to grow a human being on the black market.

**In a waiting room that smelled vaguely of** machine oil, Marcus looked at the list of costs handed to him by the man in the white lab coat. He was a human, operating in Brakiri space because he had been drummed out of every human medical association on record—expulsions that had

resulted from illegal and almost certainly immoral experimentation on the human genome. The experiments were daring, innovative, and caused him no end of trouble.

Which made him just the right person for what Marcus had in mind, and the facilities he'd been able to construct out here with Brakiri funding were more than sufficient to the cause at hand. But the total cost was still a shock.

"Right, fine," he said, quite casually. "I'm in."

"Good. Let me see it."

Marcus produced a strand of hair from a plasticine pouch, a hair that he had found on his uniform the day he had been revived. It was long and it was black and it was unquestionably hers. He'd found it on his shoulder, shortly after being revived, just where he had rested her head against his during the energy transfer. With the one-time-only exception of Delenn, the bone-crested Minbari didn't have hair like that. "Can you extract the DNA you need from this?"

The doctor—he had introduced himself only as Quijana—took the strand of hair and considered it. "That's all? Just the one strand?"

"That's it."

Quijana *hmmm*'d for a moment. "Maybe. I won't know for sure until I get inside. If there's been any deterioration, I'll need to fill out the missing sequences. She might have a freckle or two she didn't have before, but it probably won't be anything significant."

"Probably? For the money you're charging, I expect better than probably."

"I'm limited by the math, the available sequences, and what I can guess concerning what's missing, if anything. And that fee is for delivering a fully grown human being. You don't just pop those things out overnight; bodies take the time they take to grow and mature. We still don't have any way to overcome that. And thirty-two years is a long time. You're talking long-term maintenance along with the actual cloning process. That means nutrients, neurostimulation to keep the mind from turning to mush from lack of input, electrostimulation for muscle and nerve development, round-the-clock monitoring—it adds up. Now, if you just wanted an infant, or better yet a fetus, you could save considerably on the overall cost."

"I don't think that would exactly serve my purpose," Marcus said.

"Suit yourself. What else?"

Marcus handed over the seven holocrystals. "These are the neural maps I mentioned earlier," he said. "You're *sure* you can link them into the system?"

"It's risky, but it can be done. We'll have to set up a trickle-flow, so that the memories and thought patterns are transferred in something approximating chronological order. But you have to understand that there may be some lapses, a few points where she won't be able to remember something from her early life, and may remember a shadow of something from her later life. She'll probably write it off to a faulty memory in the case of the former, and the echo of a bad dream in the case of the latter, but the risk is still there."

"It'll have to do," Marcus said. "I've arranged to have the funds transferred into your account every six months. The transfer will be key-coded to her DNA sequence and brain-wave signature once she gets to that point in her development. If either one of them stops, or shows any sign of damage, the payments stop."

"Understood," Quijana said. He folded the plasticine bag, placed it in his jacket pocket, then studied Marcus for a moment. "Just so we're both clear, you *do* realize that what you are asking me to do—clone a new person with all the memories of the original person—is patently illegal."

Marcus smiled. "Spoken like a man who has heard that same warning himself, from time to time. Just remember, I don't want her to have all the memories. Only the memories up to and including the specified year, month, and day. No more than that."

"That kind of precision is impossible," Quijana said. "I can give you an approximation of that, but it may be off by a bit. How far, I don't know, but I'll do the best I can."

The doctor stood and extended his hand. "To ensure that my work doesn't fall into the wrong hands, who will be taking custody of the body in thirty-two years?"

Marcus smiled.

**"That'll be one thousand, four hundred twenty** credits."

Marcus inserted his credit chit into the scanner and watched as most of his remaining funds were extracted. *A lifetime of funds, times several hundred people, gone in just a few months,* he thought. *I must remember to get on a budget sometime soon.*

But with any luck, the small amount remaining would gather a fair amount of interest in the coming thirty-two years and four months.

"Here you go," the technician said. "Right this way."

Marcus followed the technician down the long white corridor that led down the center of Ever-Dream Enterprises, a cryosuspension service located in Syria Planum on Mars.

"We get all kinds here," the technician said. "That way over there is where we keep the near-death cases. You ever been cryo'd before?"

"Once," Marcus said.

"Well, the process ain't changed much. You go in, you close your eyes, you open 'em again and poof, you're in the future. We get a lot of folks like that. We have to make sure we don't get fugitives from the law, of course, trying to escape the statute of limitations, though that's a lot harder now that they passed the Chrono Fugitive Laws back home. Most folks just want to see the future. We got whole families in here like that. They think the future's gonna be different somehow. Better. What they don't understand is, the future's always just like the present, only moreso.

"Meanwhile, don't you worry about a thing. We've been in business for nearly a hundred years, and we'll be in business for a long time to come. Not like SleepWorld, back on Earth. You heard about that, right? They went bankrupt, and sold off the bodies of all the sleepers anybody'd want to buy, then dumped

the rest for parts. It was a huge scandal. That'd never happen here."

"I'm sure that's true," Marcus said, and glanced at his name tag. He stopped. The tag read D. GARIBALDI.

"*Garibaldi?*" he said. "Any relation to Michael Garibaldi?"

"Yeah, back about five, six generations. Course, in a tight-knit community like you get here in Marsdome, everybody's related to just about everybody else after a while. Why? You a history buff or something?"

"Something," Marcus said. He wasn't quite sure why, but he found the synchronicity of entrusting his life to a Garibaldi both reassuring and vaguely amusing. "I should've realized. You sound just like him."

He shrugged. "I ain't got much time for history vids."

They stopped in front of a narrow glass door. Inside, Marcus could see the front panels of several dozen small tubes. One of them was open. Waiting.

"You ready?" Garibaldi said.

"I suppose so," Marcus said.

*Here we go again,* he thought, and opened the door to the cryo unit.

He closed his eyes.

**He opened his eyes.**

"How you feeling?"

Marcus sat up, supported by the hands that reached out to help him. The room was impossibly cold.

"You got a bit of epidermal burn," someone said. "Slight accident with the freezer units about ten years ago. It'll pass."

Marcus looked up. It was Garibaldi, plus thirty-two years. He caught Marcus's look. "You got lucky. I retire next week. I'm vice president of operations now. I don't usually do the hands-on stuff anymore, but I remembered you, so I thought, what the hell. Might be nice to see a familiar face when you wake up."

"Seeing a familiar face . . . is exactly what I have in mind," Marcus said.

**She floated in the nutro tank, eyes closed,** her long black hair suspended like a veil around her face. She was naked. Marcus hadn't considered that part of it, and found himself turning away to protect her modesty. *When it happens, it will happen because she chooses it to, not like this.*

"Something wrong?" The speaker was Quijana's son. "Does she look okay?"

"Yes . . . yes, she looks . . . magnificient."

"Good. Took a lot of work, you know. I think we got her memory to right where you wanted, give or take." He produced a release form. "Sign here."

Marcus signed where indicated.

"Bring your ship around back, we'll pop her and load her up for you."

"I'd like her dressed first," Marcus said. "I've brought some clothes."

Quijana Junior shrugged. "Suit yourself," he said, and went off to comply. Marcus waited until he was gone, then looked again at her face. God, how he loved her.

*Hello, Susan,* he thought.

*It's been a long time.*

**Marcus finished unloading the last of** their supplies, hesitated briefly, then pushed the button that detonated the explosives he had placed strategically in and around the small flyer. It pained him to see the old ship go, knowing it had waited patiently in storage for his return, but it was necessary. It had to look as if they had been shot down.

As the smoke rose into the clear blue sky, Marcus surveyed the area around him. He had stumbled across Chryn III while he and his brother had been on a survey job, long ago. It was unpopulated, well off the trade routes, and offered little in the way of precious minerals, nothing worth the time and effort to dig it out.

But it was the most lovely world he had ever visited. In the temperate zone, lush fruit trees bent low under the weight of delicacies that contained a thousand different tastes. The air was generally close to skin temperature in this region, and the water was untainted by chemicals. The nearest Earth comparison would be Maui.

Space contained any number of such planetary gemstones, places where sentient life had not evolved, but that did not offer sufficient incentive for corporations or tourists to exploit them. Marcus had been relieved to discover, upon checking the latest survey reports, that the planet was still as idyllic and unpopulated as he remembered it.

He breathed in the sweet air, and recalled again a late night conversation they'd had, just after the end of the Shadow War. He'd been celebrating, along with Sheridan and Garibaldi and Ivanova and Franklin, and they had come to a quiet moment, as conversations sometimes did. It was Franklin who finally spoke. "Did you ever think about what you'd like to do after the war?"

Ivanova had hesitated, then said, "I've always had this dream of retiring to a beach somewhere. Someplace where no one could find me. Not the bureaucrats, not the sales guys, not anybody. I think I could plant myself by a river, or a beach, and look out over the water, and never, ever want to leave."

"You? Not a chance," Franklin had said. "You'd go stir crazy inside of a week."

"You don't know that," she shot back.

"He's right," Sheridan had said. "For people like you and me, it's as if we need someone to give us permission to relax, to say, 'It's okay if the world goes on without us for a while.' We have responsibilities, and those come first. The only way you could ever relax is if you knew there was no way you could get to those responsibilities."

Then she had looked up and found Marcus watching her. She smiled almost sheepishly. "Maybe you're right. Maybe I'd have to be stranded on a desert island or something. Anyway, it's just a dream I have. There's always too much to do, and in the end, how many of our dreams come true, right?"

*How many indeed,* he had wondered.

Now he looked over to her, asleep against a tree, as she stirred. She wore a uniform identical to the black resistance uniform she had worn during the Earth Civil War. Everything about her appearance was the same as when he had last seen her. But her mind . . . that was still an open question.

"Marcus?"

He had waited three hundred thirty-two years to hear that voice say that name. But he could never tell her that. Not ever.

"Yes?"

She sat up, looked around. "What . . . what happened?"

"What do you remember?"

"I'm not sure," she said, standing slowly. "I was on the *White Star,* and we were hit. I was wounded pretty badly . . ."

"That was weeks ago, Susan," Marcus said. "When we crash-landed, you must've gotten a bigger bump to the head than I thought."

"I thought I was dying. . . ."

"We all did. But Dr. Franklin performed his usual miracles. I mean, you're alive, and well, which rather resolves that question, doesn't it?"

"I suppose so." She examined her surroundings. "But I still can't remember what happened. Where are we? How did we get here?"

"Well, we were en route to *Babylon 5* to celebrate the end of the war—you do remember that bit, don't you, the war ending, Sheridan being made President and all that?"

"I think so . . . it's all kind of fuzzy. . . ."

"Yes, I should think so, we all had quite a lot to drink. Anyway, we were on our way back to *B5* when we were hit by raiders. We jumped to normal space, and I barely managed to get us down in one piece. Dragged you and the gear out just before the ship exploded."

"I see." She faced into the sunlight and blinked against the brightness. "Any sign of life?"

"Dunno," he said. "I suppose we should have a look around."

"Communications?"

"We weren't able to get out a distress signal before we hit, and the ship . . . well, as you can see for yourself, we're not getting word out anytime soon. And if this place doesn't have any sentient life, it's a fair chance that we won't find any com systems growing on trees. No, the best thing we can do for now is to build some shelter with the gear and settle in. At least the others won't need us for a while, what with the war being over and all."

"If we're going to be stuck somewhere, I guess this is the place for it," she said.

"Yes. Pretty, isn't it?"

She nodded. "It reminds me of a place I used to think only existed in my head, the kind of place . . ." Her voice trailed off.

"Yes?" *The kind of place where you said you could be happy,* he thought. *And you deserve happiness. Maybe we both do. And maybe this time we can find it.*

"You were saying?"

"Nothing," she said, all business again. "We should get to work."

"Absolutely. I think I may be able to find something here to eat. I'm quite a chef when I want to be, you know."

She smiled and shook her head. "I'm sure," she said, then stopped, frowning.

"What is it?" Marcus asked.

"It's strange . . . I can't shake this feeling . . . a memory of me going somewhere, sitting and talking to you, and you not listening."

"Yeah, well, I get that a lot from you," he said, trying to be offhanded, despite the cold hand that squeezed his heart. *Please, God, let her not remember. It's all I've ever asked of you. Leave her alone and let her have a little peace.*

He held his breath for what seemed like forever. Then she looked at him and laughed, and the moment passed. "That's true," she said, and then studied him for a moment. "But one thing I *do* remember is you carrying me off the *White Star* after we were hit. You saved my life."

He nodded. Looked away.

She touched his shoulder gently. "Did I ever say thank you?"

"Unnecessary," he said. "It was no trouble at all."

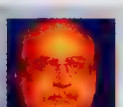
"Good, because I wouldn't want you to extend yourself on my behalf."

"Me? Bestir myself from my reverie all on your behalf? Wouldn't dream of it," he said, and he enjoyed the sound of her laugh. He realized just how much he'd missed it.

"Well," he said, turning toward the horizon, "shall we go inspect our new home?"

"Lead on," she said.

Marcus smiled, and with Ivanova beside him, took the first steps in the long, sunny walk that he knew they would share for a long time to come.

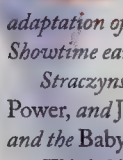


## About the Author

*J. Michael Straczynski has a long relationship with science fiction and related genres. He has previously been the story editor and primary writer for the syndicated television series* The Twilight Zone, *and his adaptation of "The Strange Case of Dr. Jekyll and Mr. Hyde" for Showtime earned him both ACE and Writers Guild nominations.*

*Straczynski has worked on* The Real Ghostbusters, Captain Power, *and* Jake and the Fatman. *He produced* Murder She Wrote *and the* Babylon 5 *telefilm and created the* Babylon 5 *series.*

*This is his fourth appearance in* AMAZING Stories.



## About the Illustrator

*Cliff Nielsen is well known for his book illustrations for* The X-Files *and* The Crow, *and for various DC Comics and Marvel Comics projects. His artwork has embellished the work of nearly a hundred authors, including Edgar Allan Poe, Chris Carter, Robert Heinlein, Madeleine L'Engle, Kevin J. Anderson, and R.L. Stine.*

*He is a frequent contributor to* AMAZING Stories.

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➤ *Continue your exploration of* Babylon 5 *on the following page with "Crucible of War," a scenario from Agents of Gaming for the* ***Babylon 5 Wars Starship Combat Game.***

*A Scenario from Agents of Gaming for the*
**BABYLON 5 WARS STARSHIP COMBAT GAME**
*by Bruce Graw*

# Crucible of War

**Commander Henderson** gaped at the screen in horror. The Centauri were here, all right, he realized numbly. His scout group had dropped out of hyperspace right on top of them!

Henderson didn't know how long he actually sat there in his chair, staring. The Centauri fleet seemed to sail along majestically, as though oblivious to his presence. Then, without warning, it abruptly turned to attack. The maneuver was so well timed and so perfectly executed, the Centauri ships might as well have been a single unit. Within moments, he could see the bright dots that were Sentri fighters streaking out of their bays.

On the edges of the screen, his fleet's fighters swept into view. Flights of Starfuries, Thunderbolts, Minbari Nials, and Narn Frazis moved forward to engage the Sentris. The Interstellar Alliance was operating as a cohesive unit for the first time, employing a joint force in a full-fledged war. Strategists had tracked Centauri operations to this system, and a fleet had been dispatched to destroy the base that would certainly be present. The bulk of the fleet lurked even now in hyperspace, waiting for word from his squadron—and his own ship, the Oracle Scout *Elemental*—regarding the base's location.

"Long-range sensors, start scanning for that base," Henderson ordered, his voice echoing through the bridge. Only now did he realize how silent it was around him. His crew had expected to see Centauri, just not right away, and certainly not right in front of them! "Helm, bring us around, behind the cruisers. Head for nav point alpha. On my command . . . mark!"

The ship swung slowly around, its course now set for a preselected point in space. From there, he could begin the process of triangulating the base's location. With effort, he tried to tune out the battle that even now began to rage about him. His ship was a support vessel, with a specific mission. It had no offensive firepower, and its crew had little in the way of combat training. Henderson's own leadership and scientific abilities had been good enough to bring him the rank of commander, but they were tempered by a lack of tactical skills—hence his assignment to a scout cruiser. The combat going on nearby was really of no importance to him, only the mission was.

"Nav point alpha reached."

Henderson glanced down at the sensor display. At the announcement, data began to flow onto the screen. Almost anxiously, he hoped to find the Centauri base's presence brightly lit. Instead, all he saw were dark red patches representing possible locations. "Proceed to nav point beta," he ordered. "Upload progress report to the *Lionheart*."

The ship shook suddenly. "Fighter strike," someone called out. On the main screen, a flight of Sentris zipped by, pursued by a cluster of Thunderbolts. Gatling pulse cannons spoke, and four of the Centauri fighters exploded into debris. Henderson allowed a smile to cross his face, then wiped it away when the explosions faded. Behind them lurked three Centauri capital ships, their guns pointed in the *Elemental's* direction.

"Brace for incoming—" Henderson said. And that was all he got out.

DURING THE BRIEF but intense conflict with the Centauri, the fledgling Interstellar Alliance fought a number of battles in various parts of the galaxy. Centauri task groups, many of considerable size, had been dispatched throughout known space to raid and harass Alliance forces as much as possible. All of this was masterminded by the Drakh, who wanted a heavy retribution to fall on the heads of the Republic.

The initial engagement of Alliance and Republic squadrons occurred in the Coutor system. Analysis of raids and attacks in the area led IA strategists to believe a hidden Centauri base had to be located there, perhaps hidden in an asteroid field or other concealed location. A joint force of Narn, Earth, and Minbari forces gathered in hyperspace near Coutor and integrated their command net for the coming joint operation. Meanwhile, a small scouting force was dispatched into the system to identify likely targets and, if possible, determine the location of the Centauri base. The scout group dropped out of hyperspace almost on top of a Centauri battle squadron. After a brief moment of surprise on both sides, the battle commenced.

*This scenario is designed for use with* Babylon 5 Wars, *the squadron-level space combat game from Agents of Gaming. Data on the ships involved can be found in the* Core Rules *and the* Earth Wars *supplement. For more about* Babylon 5 Wars, *see the AOG website,* <www.agentsofgaming.com>. *You can find* B5 Wars *products at hobby and game stores everywhere.*

## Scenario Setup

Interstellar Alliance: 1 Earth Oracle Scout, 1 Earth Omega Destroyer (24 Thunderbolts with 4 missiles each), 2 Earth Hyperion Heavy Cruisers (6 Starfuries each), 3 Minbari White Stars, 3 Narn G'Quan Heavy Cruisers (12 Frazi heavy fighters each).

Centauri Republic: 4 Primus Battlecruisers (12 Sentri medium fighters each), 6 Demos Heavy Warships, 9 Vorchan Warships.

Use a standard map. Before the Alliance forces arrive, the Centauri player sets up the Centauri fleet anywhere within 15 hexes of the center of the map, at any desired facing and speed. The Alliance player then rolls one six-sided die to determine the Alliance's starting location. On a roll of 1, the forces arrive in the top left corner of the map, near hex 0101. On a 2, the start is near hex 2101. A roll of 3 indicates hex 4201, a 4 indicates 4230, a 5 indicates 2130, and a 6 places the Alliance forces near hex 0130. The Alliance player can set up his or her forces anywhere within 5 hexes of the resulting location, facing toward the center of the board, speed 6 or less. (They arrived through jump points opened on a previous turn.)

## Special Rules

The Interstellar Alliance forces are operating under a Minbari-designed command net. So long as the White Stars are all present in the scenario and undestroyed, all Alliance ships (but not fighters) receive a bonus of +1 to their initiative.

The Centauri units are permitted to ram, but the Alliance forces may not.

## Victory Conditions

Count the number of Combat Points of opposition your side destroys or forces to retreat. If you score 7,500 or more points higher than your opponent, you win a total victory. If the difference is 5,000 or more, you win a major victory. If the difference is 2,500 or more, you win a minor victory. Any smaller difference is a draw.

The Oracle Scout is attempting to learn the location of the Centauri base, and it should try to scan as wide an area as possible. Therefore, the Alliance side scores a bonus of 1,000 Combat Points for each of the possible Alliance entry points (see "Scenario Setup") the Oracle visits. This does not include the initial entry point. The Oracle must have an intact C&C and sensor system to qualify. (The Centauri would be well advised to destroy this ship as quickly as possible to prevent this bonus from accruing.)

## Variations

If you have the *Variants-1* book for *Babylon 5 Wars*, you can provide a greater variety of forces than those listed here. Replace one of the Hyperions with a Delta model (the pulse cannon version) and one of the G'Quans with a G'Tal Command Cruiser. On the Centauri side, replace a Primus with a Secundus and a Vorchan with a Vorchar. The Centauri player also can exchange one flight of Sentris for a flight of Sitaras.

## Epilogue

Commander Henderson opened his eyes. "H-how—" he started to ask.

"Shhh. Don't say anything just yet," the white-clad medtech told him. "You've been out for over a week. It took a while to patch you back together."

"But—"

"I'll take it from here, Lieutenant." A grizzled face appeared in Henderson's still-fuzzy field of vision. It was Pavel Oronev, captain of the *Lionheart*.

"Sir," Henderson managed.

"No need to salute," Oronev said with a grin. "We won, old boy. Lost most of the fleet, but we did it. We missed the fun part, though. The fan-heads had an even bigger armada guarding the base. We kicked them all the way back to the Republic!"

"W-what about . . ."

"The *Elemental*? Total loss, sorry to say. But she lasted to the second nav point, which got us the data we needed. Not bad for an old bird."

Henderson relaxed, sighing. The *Elemental*, his first command—even though it was an aging hulk, it was still his ship, and he hated to see it go. It had done its duty to the very end.

"As for you . . ." Oronev continued, the grin widening. "You know, we're replacing the Oracle class in a couple of years. One of the new ships still needs a captain. . . ."

*A murder needs a victim and a perpetrator—*
*except in some cases, when one out of two will do.*

# The Lazarus Murder

BY MICHAEL A. STACKPOLE

FATHER FLYNN CAME FLYING around the corner on Deck 47 and bounced himself off a bulkhead. He appreciated the fact that the Qian station manager had such fine control over gravity that she managed to drop it to .75 Terran norm as he ran, letting him eat up more ground with each step. Never in his youth had he run that fast—except on a few worlds where running beat dying—and now, being past middle age, he relished the sensation of speed.

The lighter gravity ended at the entrance to Transient Lounge 47–214, which was known to the inhabitants of Purgatory Station as Clipp's Joint. A small crowd had gathered there, with several Zsytzii security officers having wrestled a Bouganshi back against the tavern's far wall. Most of the others were human or humanoid—Clipp's Joint only catered to OxeN (oxygen/nitrogen breathers) and was too small to accommodate many folks bringing in their own atmospheric gear.

The Xeno on the floor was mostly humanoid, and clearly wasn't having an atmosphere problem. Not respiring tends to ease those troubles.

"Oh, for the love of Mike." The priest shoved aside two gawkers and dropped to a knee beside the meter-long creature. The Bouganshi had done a great job of opening it from crotch to throat in a slash that sprayed oily black fluid over the floor and bar. The dead alien had two stubby legs and two pairs of arms, the lower ones shorter and thicker than the upper ones. It had no neck to speak of and not much more of a nose, but it did have an oval mouth and two dark eyes. Vestigial fuzz covered its head except for the face and where the earholes curled down above and behind the eyes.

Flynn kissed his liturgical stole and hung it around his neck, then looked up at the crowd. "Clipp, you called me down here. Do you know what this one is?"

Clipp, the big bartender, shook his head. "Don't know what he is, Father, but he was dead. You were the one to call. You can do something for him?"

The priest nodded. "Give him some peace, maybe."

A woman with a shock of violet hair, and eyes and lips to match, frowned at the body. "I think it's a Vaardysch. Not really a child of God, is it?"

Flynn shrugged. "I'll not be second-guessing whom God will claim or whom he won't. I'm going to be giving him last rites—performing the sacrament of Extreme Unction. If you want to pray along, you're welcome to. Otherwise, a bit of respect for the dead would be nice."

A few stayed, including Clipp, aping the priest's motions as he made the sign of the cross. Had Flynn known anything about the Vaardysch—or even if the thing *was* a Vaardysch—he would have chanced anointing it with the oil of the sick. It was olive oil that had been blessed, but Flynn didn't know if it would somehow react with the creature's flesh.

What he did know was that the station's pathologist would note that a foreign substance had been applied to the body post mortem. That would send old Kirong Keey into one of his foul moods, and Flynn had no desire to do that. At the best of times a Voulnir was difficult to deal with, but if a body bound for his domain had been tampered with, his fury would continue until he felt he had evened the score.

"Be a few stars that go nova before that happens. . . ." Flynn muttered to himself. The priest bowed his head and sketched a cross with his thumb in the air over the alien's forehead. "Through this holy anointing and His most loving mercy, may the Lord assist you by the grace of the Holy Spirit so that, when you have been freed from your sins, He may save you and in His goodness raise you up. Amen."

Father Flynn again made the sign of the cross, then staggered to his feet. He removed the purple stole from around his neck, kissed it, then folded it neatly before turning to Clipp. "Why'd the Bouganshi slice him up?"

The big man shrugged mightily, then wandered around the end of the bar. "Not sure, Father. Would you like a drop?"

"A bit early yet, I'm thinking." He leaned against the bar. Though white hair capped his head, and years had stiffened his

ILLUSTRATION BY ROB DAY

joints just a mite, the priest had remained fairly trim. Unlike Clipp, he had no belly sloshing over his belt and no jowls that quivered when he talked. His azure eyes followed the bartender's movements.

"What happened, Clipp?" the priest asked.

At that, Flynn felt a heavy hand on his shoulder and looked left at the dark-skinned man sidling up to the bar next to him. "Now, Father, you'd not be happy if *I* decided to start doing *your* job, would you?"

"On the contrary, Captain Harrison. The Church has always welcomed those who find they have a vocation, even late in life." The priest gave the security officer a wink. "Just trying to make sense of it, Jok. I had a feeling, I did, that Clipp wasn't as forthcoming as he might have been."

Jok Harrison narrowed his brown eyes. "Go ahead and tell it, Clipp."

The bartender sighed and wandered back down to their end of the bar, where he hunched over and kept his voice low. "I run a nice place here. You know that. You've both been in for a drop."

The security officer arched an eyebrow, a silent demand for Clipp to start cooperating.

"Okay, so they come in here, the Bouganshi and the other, whatever he is. They're together, talking, the Bouganshi translating

orders and everything. They're drinking. The little guy is holding his own, the Bouganshi is getting sloppy, the way they do, but they're not bothering anyone." Clipp pulled a dirty rag from his back pocket and scrubbed at an invisible stain on the bar. "Then the little one says something. The Bouganshi says something; they go back and forth here, with the little one pulling variations of the same theme. I don't know what he said, but suddenly the Bouganshi pulls that knife of his and cuts him. I didn't see it, but I seen the aftermath."

Harrison frowned and turned around, hooking his elbows on the bar as Clipp moved away to serve other customers. He looked across to where the Zsytzii officers were binding the Bouganshi's arms and hauling him off to the lockup. "The knives the Bouganshi carry—they're just for ritual purposes, right?"

The priest shrugged. "That's what I hear, but I understand that in the military, 'ritual' can be broadly interpreted. The knives, *ghoura-khai,* are used for swearing oaths of honor and settling matters of same, as I've been told."

The security officer let a low growl rumble from his throat. "Worked another station closer to the Bouganshi colonies. Had a murder where it was done with *khais*—duel that scored more than first blood. The killer wouldn't talk except to an elder—kind of a priest called an Adjudicator. We couldn't do anything, so we turned him over to Bouganshi authorities, and they dealt with it."

"I guess, then, Jok, that's what you'll be doing here."

"Yeah, but I hate not knowing, you know." He glanced sidelong at the priest. "I bet he'd talk to you."

"And you think I'd be violating the confidentiality of a priest and penitent?"

"Hypothetical situation, Father."

Flynn shook his head adamantly. "No hypothetical about it. I'd like to know just as much as you would what happened. If they were acquainted, as Clipp thinks, they likely traveled together. No luggage here, so they probably have a ship or rooms, I'm thinking. You're already checking that."

"Might give us some clues, sure." He levered himself away from the bar as a forensics team came in, complete with two crime scene scanner drones and a gurney-drone that would take the body down to the morgue. "Time for me to work, Father. Let me know if you change your mind."

"And you'll let me know what you find out, will you, Jok?" The priest threw him a brief salute.

"I will, Father."

IN THE THREE DAYS afterward, Father Flynn had thought about the murder some, but primarily in terms of how it might impact his duties as chaplain. He knew it was likely that any funeral ceremony would be turned over to the Mephist chaplain, Meresin, but he consulted the computers to learn what he could about the Vaardysch. What he found was meager and mostly concerned trading cartels. Interstellar trade seemed concentrated in the hands of a few powerful trading families, and the Vaardysch were remarkable due to their seeming encyclopedic knowledge of transactions with their families' trading partners down through the centuries.

Of their culture, little was known, which was not all that unusual. The Qian Commonwealth was composed of thousands of member states, many of which were content to insulate their populations from the rest of the universe by electing a class of people to travel to the stars, leaving the rest at home in peace. The Vaardysch did not allow scholars to come and study them. While a few traders' anecdotes did provide some insight into the Vaardysch, Flynn found nothing about funerary rites.

Father Flynn looked up from the fly he was tying as Meresin pulled a fishing rod and reel from the wall and turned it over in his hands. "That one is a beaut," said Flynn. "Any world I've fished, I'm always landing something with that one."

The Unvorite smiled politely, gracing Flynn with a brief flash of sharp, black teeth. Tall and lithe, Meresin had skin the angry red of a bad sunburn. A crown of seven thornlike horns ringed his head, poking up through long, black hair. The largest horn clawed its way upward from his forehead, right at the hairline,

**When Flynn had first seen a Voulnir, he'd thought it was**

and directly above his nose. A straight nose and bright eyes, sharp cheekbones, strong jaw, and only slightly sharpened ears made the Mephist priest devilishly handsome, which was typical of his species, both male and female.

Their skin tone, the horns, and the Mephist philosophy had quickly led many Terrans to cast them as Satan's horde incarnate. In the years he had spent with Meresin on Purgatory Station, Flynn had come to see the Unvorites more clearly and knew that such a simple characterization—like all such—didn't hold true. While he did not always agree with his Mephist counterpart, Flynn found him a likable sort who was capable of serious intellectual discussions as well as just enjoying himself raising hell.

Meresin tapped a black-taloned finger against the reel. "Once again, my friend, I fail to understand the enjoyment you get out of floating in a frail shell over deep water, engaging in a repetitive motion for hours on end."

Flynn finished tying a knot with black thread and snipped the extra off. "Beautiful scenery, peaceful solitude, practicing a skill, hoping to make it better. You should understand how enjoyable that could be. After all, Mephisti is concerned with the quest for pleasure, is it not?"

The Mephist priest nodded and returned the fishing pole to the wall rack. "Indeed it is, which makes it diametrically opposed to your austere canon of self-deprivation. However, you forget our second commandment: As long as it hurts nothing, do what you will." He hooked a finger around the pole. "Your sport, your pleasure, hurts these trout, or their analogs, and therefore is outside the acceptable realm of pleasures as we define them."

"And you'd be splitting hairs there, too, wouldn't you, since I've seen you enjoying the process of getting yourself on the

outside of a thick slice of meat. I'm not thinking the beast that surrendered your meal went pain-free."

"Ah, but we have an exception for foodstuffs." The Unvorite narrowed his dark eyes. "If you needed the food and were eating what you caught . . ."

Flynn laughed. "Well, Meresin, truth be told, I'd not mind it. Water being common, and evolution what it is, trout or what pass for them can be found all over the universe. Pity that their chemistry and mine don't always mix, though the forces that made them finny and fish do make for great sport. I leave them with sore mouths, they leave a bit wiser."

"You would argue that little harm is done, then, so taking pleasure from it is no sin?"

The Catholic priest arched an eyebrow. "We keeping score in your notation or mine?"

Meresin laughed. "Good point." He sighed. "It's a pity Father Olejniczak isn't here anymore. He'd give me the sort of fight on this subject that you want out of your trout. When is he due back?"

Flynn rose from his chair and stretched. "He's not coming back."

"No? Why not?"

"I gave it last rites, yes, but I didn't touch it."

"No matter. What you did interfered."

Flynn crossed his arms over his chest and hardened his expression. "And what proof would you be having of that?"

The pathologist's two right limbs pointed off outside the holographic image. "The proof I have is right here. Come down and see your handiwork. You got what you wanted."

Flynn glanced at Meresin, but the Unvorite just shrugged. "What I wanted?"

"Yes, Flynn." Keey's antennae waved through the air. "The Vaardysch is alive."

THE MEPHISTI RELIGION maintained that resurrection was impossible, so Meresin willingly accompanied Flynn to the station's morgue. Flynn was more than happy for the company. He was certain Keey's rage over having scientific fact—a dead body—being overturned would be towering. The Voulnir was more than an atheist: He viewed all living creatures as meat machines and refused to acknowledge a spiritual component to life. If he could not see it, touch it, cut it out and weigh it, it did not exist in his universe.

*the bastard child of a microcephalic octopus and a lobster.*

The white-haired man shifted his shoulders stiffly. "Marguerite really didn't like the assignment out here, so when they got leave to go back to see Tad's mother before she died, Marguerite asked the bishop if Tad could be given a parish on Terra. I can't be blaming her, really, given that raising children is difficult out here. Their eldest is just about the age to start school, and, with the third on the way . . ."

"I will miss him, though I cannot say the same for his wife." Meresin flashed the diabolical smile that used to send shudders through Marguerite. "They are sending you another aide?"

"That is the plan, but when and who I don't know."

A gentle but insistent beeping from a rounded wall unit in the corner cut through the clerics' conversation. Flynn glanced over toward the corner. "Flynn, connect."

In response to his command, the Qian station computer projected the holographic image of a creature with four long, triple-jointed arms, each of which ended in a hand with four stubby fingers. An exoskeleton covered the creature, and what passed for a head was a narrow wedge shape that sprouted two large antennae, two small antennae, a pair of compound eyes on stalks, and had a tiny mouth. When Flynn had first seen a Voulnir, he'd thought it was the bastard child of a microcephalic octopus and a lobster—except that it was his height, was colored a deep cerulean blue, and had an attitude so sour that it banished visions of lobster bibs and drawn butter.

"Flynn Patric Dennis Father," the Voulnir pathologist growled, "you have meddled in my affairs again."

"And good day to you, Keey Kirong Doctor. I'm sorry to be hearing you are experiencing some difficulty today. What is it you think I've been doing?"

The Voulnir's eyestalks quivered with irritation. "The Vaardysch body—you plied your superstitious nonsense over it."

More than once Keey had noted, "Faith is belief without proof: a waste of brain waves."

Flynn also felt trepidation building in him over the idea that the Vaardysch's resurrection would be blamed on him. His superiors in the Church had sent him to Purgatory Station to hide him away. Bringing something back to life, even way out on the fringes of the Qian Commonwealth, was likely to attract attention.

Meresin leaned back against the lift's wall. "The last remote resurrection you had was, what, a good twenty-two hundred years ago? Lazarus?"

Flynn nodded. "Give or take a decade or so."

"Hmmmmm, and look what they did to the one who managed that." The Mephist priest looked down at his palms. "Make it tough to grip a fishing rod."

Father Flynn bristled for a moment, then realized what Meresin was trying to do to him. "You're right. Resurrection isn't something just anyone can do."

"Well, no one can do it, if we're scoring in *my* tradition." The Unvorite smiled. "In fact, that's as close to blasphemy as one can get."

"Well, I'd not be wanting to be a blasphemer, no matter which way we're scoring." Flynn frowned. "Keey is sure the Vaardysch is alive, but he was just as sure it was dead. I'm not thinking my giving it last rites is what brought it back. Something else is going on here."

The lift's doors opened, and the two clerics emerged at a run. After a short sprint down a corridor, they entered through a doorway to the left and found themselves in the morgue, arriving only a step behind Captain Harrison. It was an ovoid chamber in which three floors seemingly floated in the center, each one anchored in the middle by a structural support beam running

from pole to pole. The walls were lined with stainless steel hexagonal hatches behind which bodies and supplies were stored. Drones moved up and down the walls like spiders, retrieving and storing items.

The morgue's doors opened onto the large middle floor. After ascending a brief set of steps, the clerics came to a central dissection theatre, complete with several banks of lights hung from the floor above. The lights had been focused down on a stainless steel table, upon which lay the Vaardysch body. It looked largely as it had when Flynn had last seen it, except that the clothes had been fully cut away and the gaping hole in it had been stapled shut.

The priest quickly noted one other change—a significant one.

The outer layer of its flesh had taken on a translucency. This included a white film over the eyes. Beneath that crystalline wrapping of flesh, Flynn could see muscles and veins twitching and moving. Fingers and toes moved, too, but the toes moved as if they were inside socks of glass; the outer toe flesh did not flex or move. Each eye likewise showed movement beneath its covering.

Flynn looked up at the Voulnir pathologist hunched over the other side of the table. "You're thinking this is *my* doing?"

"I have eliminated every other possibility but one: that the Vaardysch are immortal." Keey drummed his fingers against the metal table, causing a rumbling hum. "The body cooled, there was no brain-wave activity, the creature was dead. Now it is not dead."

Meresin frowned. "No offense intended, but do you know enough of the Vaardysch to determine if it was dead?"

"No respiration, no circulation, no neurological activity. It was dead—voided, as you might wish to call it, Meresin Mephist-ka." Keey played his antennae over the Vaardysch body, rasping against the leathery outer flesh. "The body was stored until sensors reported a rise in temperature in the cell. We found basic life signs."

The little Vaardysch suddenly arched its back and threw open its mouth. The clear flesh popped over its breastbone and tore, then split over its mouth. It hoarsely sucked in a breath, then coughed it out, spraying mucus from beneath the flesh into the air. Keey caught most of it and backed off quickly to meticulously clean his antennae, while Flynn just produced a handkerchief from his back pocket and swiped at the dab that had landed on his forehead. Meresin, if he had been hit at all, gave no sign, and Harrison, at the alien's feet, had been spared the spattering.

Again the little creature arched its back, tearing the center seam more, on up to the throat. It made all four of its hands into fists and rotated its wrists. The leathery skin split, leaving the hands encased in gloves, which the creature quickly flicked off. It reached up and grasped the flesh on its throat and chin, then completed the split to the chest. It peeled the flesh back as if it were just doffing a hood, then sat up and began to wriggle out of its fleshy cocoon.

It blinked its eyes, then swiped at the residual goop clogging them with its lower hands, while the upper ones worked at clearing its earholes. The fluid covering it began to run like sweat over its cheeks to its chest, and on down to form quite a puddle on the table by the time the creature had freed itself of its old flesh.

"Greetings." Its words came clicked but recognizable in Comm, the standard language of the Commonwealth. "I am Laiurish Dayanne of Norp and Gylan."

Flynn was about to introduce himself when one of the Voulnir's blue antennae tapped Laiurish on the shoulder. "Keey Kirong Doctor am I, and this is my domain. Harrison Jok Captain is of station security. Meresin Mephist-ka and Flynn Patric Dennis Father are spiritualists in residence here. There are things we must know. How is it you are alive?"

The little Vaardysch clutched its smaller arms to its chest. "You will forgive me, but such information is not mine to reveal."

Harrison frowned. "Forgive me, Laiurish, but until this moment you were dead. We have in custody a Bouganshi . . ."

"Auran Ashke."

The security officer nodded. "You've known him for a while."

The little alien stood and began brushing glistening fluid down his body. Already his flesh had begun to darken. "He has traded with the Dayanne for many years."

"Well, we have arrested him for your murder."

Laiurish mustered what Flynn suspected passed for a smile. "Oh, he did not murder me."

Harrison frowned. "Well, now the charges will have to be amended to attempted murder."

"No, officer, he *is* a murderer." The Vaardysch rested its upper fists on its low hips. "*I* was not murdered, but Norp, my parent, was."

Flynn shook his head. "I'm hoping I'm not alone in thinking I'm missing something here."

"What I will tell you of the Vaardysch I will say only if yourselves would be bound by an oath to preserve this information. It is not such that it would hurt the Vaardysch were it known, but it is not mine to reveal, except in such a serious situation as this. Would you all swear not to reveal what I will tell you?"

It peeled the flesh back as if it were just doffing a hood,

The clerics nodded, and Keey set his antennae through a weaving pattern that signified the same thing.

Harrison hesitated. "As much as I can within my official capacity, I will do so, yes. If my duty calls for some revelation, I cannot be bound, especially if justice will go undone."

Laiurish thought for a second, then smiled. "That is acceptable, for I wish to see justice done, too. The Vaardysch, when we mate, implant an embryo in the parent body, deep next to the central nervous system canals. The embryo connects into the neural network in the body and is nurtured by the emotions and experiences of the parent. If the parent perishes, the embryo then takes over, repairing damage and assuming control of the body. If there is too much damage, the entity will never recover. In

this case, it took a short time. In others, it could take much longer."

Meresin frowned. "Are you saying you have your parent's memories of his life, and those of his parent, and his parent and so on?"

"Much is forgotten from one life to another, but some memories remain." Laiurish looked at Harrison. "You would wish to know if I remember my parent's murder. I recall some of it, coming to the station, drinking, then the shock of the knife tearing me open. Then nothing until now."

Harrison stroked a hand over his chin. "I will need a statement from you going into as much detail as you can recall. Do you have any idea why Ashke would murder your father?"

"Oh, yes, yes. They frequently argued over money. Their business agreement had been formed along Bouganshi lines, so the survivor would inherit everything. I can only think he sought the business for himself."

"Greed—one of the Seven Deadly Sins," said Flynn

Meresin glanced at the priest. "One of the Nine Minor Pleasures, you mean."

Flynn smiled. "Either way, I'm thinking it's the core of this situation." He looked at Laiurish. "Your command of Comm comes from your parent?"

"It does, as does my knowledge of market manipulation and many other difficult skills." The Vaardysch tilted his head forward to let a bit of fluid run out of his earholes. "Redemption of the body and retention of skills and memories are a great evolutionary advantage."

"So it seems," Flynn agreed. "Quite an ordeal you've been through to be born. Welcome to the world."

"Thank you." Laiurish glanced at Keey. "You would not think ill of me if I wished to leave this room? I feel out of place here and, after my emergence, I need nutrition."

The Voulnir wove his antennae, then approached the table. He fixed one of his eyes on each of the clerics, but spoke to the Vaardysch. "Your life is a natural process, which pleases me. It would be my pleasure to conduct you to quarters and find you food."

The two humans and the Unvorite watched the Voulnir cradle Laiurish in his arms and carry him from the morgue. The Mephist priest smiled. "Well, there's a miracle for you."

Flynn frowned. "You heard the both of them. It was natural, nothing I did at all."

"Not that, friend Flynn, but Keey acting civil, even almost pleasant."

The Catholic priest nodded slowly as he folded his arms across his chest. "Indeed, not what I expected. Definitely a day for oddities."

Harrison smiled. "At least we know what happened. As they say, 'Out of the mouths of babes . . .'"

"Interesting point, I'm thinking, Jok, interesting point." Flynn sighed. "Though relying on a baby truth to explain an adult situation like this leaves me not feeling good at all. Something is just not right here."

"What are you going to do?"

A quick grin grew on Flynn's face. "Pray. Seek some guidance, and then do what I'm called upon to do."

THE BOUGANSHI DIDN'T even look up when the energy field capping his cell's entryway quit humming. Like most of the males of his species, Auran Ashke was big by human standards, both in terms of height and sheer bulk. Dark gray skin covered the Bouganshi from the top of his hairless head to his toes, of which there were four on each foot. The thickly muscled arms ended in hands that had two thumbs and two fingers each. The way they were offset allowed for a strong grip that, when wrapped around a man's forearm or throat, could snap bones very easily.

Despite the Xeno's physical strength and the criminal history that Harrison had provided on Ashke, Father Flynn felt no fear entering the cell. The Bouganshi kept his dark eyes downcast and sat on a bunk with his knees drawn up to his chest. He gave no sign of having noticed Flynn entering the cell—the slit nostrils in the flat center of his face didn't even twitch, much less flare.

Flynn seated himself on the foot of the bunk and looked straight at the cell's opposite wall. He didn't let his eyes flick toward Ashke, which meant the Bouganshi remained just a dark hulk peripherally visible to the right. The priest sat there silently, calmly, resting his empty hands palms up in his lap.

After a minute or so, the priest began speaking in low tones—which did little to hide his accent as he used the Bougan tongue. "Meet Father Dennis Flynn. What has befallen Auran Ashke here dishonors your name and that of your ancestors." The words had come from a study of the Bouganshi and were supposed to be those uttered by an Adjudicator—someone who functioned as a judge, serving the gods of law within their society.

From that point Flynn was on his own, and he harbored no illusions about the likelihood of success. While the chance was small that he would be able to get Ashke to say anything about what happened, he had to try. He knew, without a doubt, that the events that had transpired in Clipp's Joint were not as simple as they seemed.

*then sat up and began to wriggle out of its fleshy cocoon.*

He continued in Bougan, halting over some words—all the while thankful he'd taken time to refresh his understanding of the language before he attempted the interview. "Know that your history of drunk and disorderly conduct charges has been found, and that it is believed that this time you decided to use more than your fists in a fight. There appears to be evidence that the accounts of your business with Norp Dayanne show some irregularities. It has been suggested that you were confronted with them and slew Norp before he could raise any alarm."

Harrison's reviewing of the accounts and his subsequent discovery of funds transfers made under the use of Ashke's authorization codes had surprised Flynn. In the eyes of both Harrison and Keey, the scenario became obvious: If Norp were

slain, Ashke would own everything, and then could cover up his embezzlement. They theorized that Ashke had planned to murder Norp later, then was ambushed with an accusation in the bar. Drunk, and with a history of violence, Ashke struck out, killing his partner.

"No belief here that is what happened," Flynn went on. "You could have lashed out with a fist and crushed Norp in an instant. Your use of your *ghoura-khai* indicates that what passed between you was a matter of *ghoura* in your eyes. An accusation of accounting errors would not qualify. It was something else that Norp said."

The priest fell silent again and waited. Quick though the Bouganshi might have been to strike under the influence of intoxicants, Bouganshi patience in making decisions while sober was legendary. As the old joke went, God made Heaven and Earth in six days, then stopped because He'd asked a Bouganshi what He should do next. He was still waiting for an answer.

"*Ghoura*," the Bouganshi croaked in Comm. His gravelly voice did not wake Flynn up, because he had not quite drifted off to sleep waiting for a reply, but it had been close. "Norp said things violating *ghoura*. Asked him to stop. He refused. Asked again. He refused. Honor demanded his death."

"And killing him hurt. He had been a friend," Flynn said.

"A long time together. Learned much from Norp, owe much to Norp." Ashke rapped a fist against his chest. "As Norp nurtured in the early times, he needed nurturing now. Took care of him, doing everything. He spoke Comm, but for a year used this voice."

Flynn slowly nodded, sorting out the meanings of Ashke's words. The Bouganshi, being eminently practical, eliminated the use of personal pronouns by the speaker, since it was obvious who was speaking. "You spoke for him?"

"Translated. He was forgetting Comm and some other things." Ashke's nostrils flared slightly. "Planned this as his last run. The ship would have been bound to his homeworld inside a year. He wanted to rest."

"What did he say to you that violated *ghoura*?"

The Bouganshi's hands snapped into fists and slammed together with a leathery crack. "Never repeated. Cannot remember him saying those things. Will not remember him saying them."

Flynn nodded and let silence settle over them for a moment. "What about the money being moved out of your accounts under your authorization?"

Ashke's jaw opened, revealing a serrated arc of teeth in what might have passed for a Bouganshi grin but was likely to spark nightmares in men. "Codes existed, but look at the equipment. Navigational computers have keypads made for Bouganshi hands. Transactional computers do not. No knowledge of missing money here."

Father Flynn nodded, then sat forward and stood. "Thank you, Auran Ashke. You have given me much to consider." The priest started to leave, then turned. "One other thing: What do you know of Norp's family?"

The Bouganshi shrugged, his shoulders looking like gray mountains being lifted by an earthquake. "His partner Gylan was lost to him. He had a daughter by her who visited once. He said he also had a son by her, but that one is unknown here."

"Thank you."

Ashke looked up. "Father, a trial here, without Bouganshi Adjudicators?"

"It's likely. The case against you appears to be strong. There were witnesses to your cutting him with the *ghoura-khai*. Such is not a crime in the eyes of the Bouganshi, if justified, but that will not work as a defense here. If you are tried, you will be convicted. There is a chance they might send you home for your punishment, though more likely they will send you to the prison on Chjoric Prime."

The Bouganshi's jaw clicked shut, and he resumed his stony staring at the foot of the bunk.

Flynn watched him for a moment, then slipped out of the cell. The energy screen went back up, and the two screens that cut off the portion of the outer corridor came down. Flynn knew, as he walked to where Harrison and Keey were waiting, that Auran Ashke was innocent of murder, but would suffer the consequences of being convicted nonetheless. He decided he couldn't let that happen.

Ashke's jaw opened, revealing a serrated arc of teeth

Harrison and Keey waited for him in the small conference room outside the station's brig. The priest poured himself a glass of water and sipped it, letting his compatriots have their own taste of Bouganshi deliberation, then lowered the glass and appropriated a chair. "I'm thinking he's innocent of murder."

Keey gripped the narrow end of the table with four hands and jutted his body halfway down to Flynn. "What evidence have you of that?"

"I've spoken with him. I know it."

A buzzing sneer entered Keey's voice. "Accept it on faith as you do your superstitions? It would take a miracle for him to be proven innocent, since others witnessed his crime, including his victim."

Flynn smiled. "There's evidence in this case, Keey, plenty of it. First off, there's been no establishment of a murder, has there? We have no cadaver. You may have certified that death occurred, but that body is up and running around. Deaths and medical revivals happen all the time. Even if someone were attacked and died, then was revived, there would be no murder charge."

Harrison frowned. "But Norp must have died. If he did not die, how did Laiurish come to be?"

"That's a good question, Jok." The priest's azure eyes narrowed. "Of course, the only source we have about Norp's transformation is Laiurish. Given how closely he is involved here, I'm not thinking I like him as a reliable source."

The security officer poured himself a glass of water. "I understand, but this is something that lawyers defending Ashke can sort out."

"Why leave Ashke under suspicion when we can clear this up here?"

Keey's antennae whipped through the air. "What trickery now? He committed a murder."

"That's what your death certificate says, Keey, but I'm thinking we can challenge that assumption. If you were to be convening a coroner's court, we could settle the question."

The pathologist rocked back and forward, his antennae pitter-patting down around Flynn's hands. "It has been settled. There is no reason to question it. Norp was dead. It is certified."

Flynn winced painfully. "Well, then, you'll be forcing me to do something I don't want to be doing."

The Voulnir's twin eyes jutted straight at him on their eyestalks. "What?"

"Well now, you have a body that you, as a scientist—as a totally atheistic, not-spirit-believing scientist—have certified as being dead. I gave the body last rites. Three days later, it's up and around and walking and talking, remembering everything. Seems I'll be filing reports with the diocese about a miracle—a full-out resurrection. Been a couple of millennia since we had any of those, and the last two created quite a stir."

Flynn got up from his chair and began to pace, staring off into the distance. "Just think of it, Doctor. Purgatory Station will be crawling with clerics. The Catholic Church will send a team or two out, to scan everything, to interview you, download your drones, copy your files. And then the Mephists—they'll have teams here to prove no resurrection took place at all."

Harrison smiled. "Don't forget all the Wheelers. . . ."

"Jok Harrison, you know to be more respectful than that." Flynn flashed a frown at him. "But your point is well taken. Every faith that believes in reincarnation will be here and very happy that Laiurish Dayanne has his father's memories. And the joy of it, Doctor, is that with you being so clearly antispirit, you make the perfect skeptical source. The fact that you said he was dead, and then were so touched by his resurrection that you carried him off to find food, well, is there a news source or entertainment cartel that won't be invading your domain to watch you work and tell your story? I'm thinking . . ."

"Enough!" Three hands hammered the table, while the fourth broke a corner off it. Keey's antennae whipped back and forth, causing Harrison to half duck beneath the table. "You'll have your court. You wish to be there, of course. Representing Ashke. Being the devil's advocate?"

The priest hesitated, then nodded. "I'm not thinking you really know what you're suggesting, but that's fine with me. I'll be seeing you in your court."

WHILE THE MURDER had not attracted overmuch attention outside the OxeN community on Purgatory Station, the news that Kirong Keey was going to allow a cleric to challenge one of his findings did create a stir. Offers to assist Father Flynn came from throughout the station, less out of a desire to have Keey's finding questioned than to get access to the proceeding itself. Two of the station's three competing news providers even offered to pay for famous lawyers to serve as Flynn's cocounsel, but the priest demurred.

Meresin smiled as he waited with Flynn at the Advocate's table. "I do understand your approach, my friend, though I would have to argue from the point of view that there was no murder. Since we know resurrection is impossible, Norp never could have returned from the dead, therefore never was dead and must be masquerading as Laiurish for some reason."

"You know I find your theory of the case fascinating, right? Still, I won't be using it." Flynn frowned. "My arguing from Mephist dogma—you don't think that would be a wee bit suspicious?"

"As if anything you will say will sway Keey." Meresin slowly shook his head. "What we believe and how we exist is anathema to him. It strikes me as curious that we have no trouble accepting what he takes as true, but what *we* believe is utterly outside *his* realm of experience."

"True, but there's the advantage. We can play by his rules. He doesn't want to understand ours." Flynn glanced at the notes he'd made on his databook, then looked up as the Voulnir sidled his way to the padded post upon which he would perch. "Time to get started."

The court had been set up in the morgue, with the main floor cleared. Tables had been set up for Keey and the Advocate, and chairs had been arranged for witnesses, including one beside Keey's table for whoever was testifying at the moment. Keey had banned all news providers and spectators from the room, citing a lack of seating. The fact that there was plenty of room for more chairs had nothing to do with the amount of seating Keey had made available.

*in what might have passed for a Bouganshi grin.*

"The coroner's court inquiry into the death of Dayanne Norp will commence now." The Voulnir's antennae made a swishing sound as they whipped through the air. "In order to establish events . . . Yes, Flynn Patric Dennis Father?"

Flynn didn't let the annoyance in Keey's voice deter him from standing. "If you're being of a mind to speed things along, Doctor, the Advocate is willing to—ah . . . *stipulate* is the legal term—I'd be willing to take on *faith* that Auran Ashke did use a *ghourakhai* to open Norp from stem to stern. Captain Harrison's reports, as well as your autopsy and any witness statements about the assault in Clipp's Joint, can be entered into the record."

The Voulnir jutted his head forward, with all four upper limbs folded and rising like towers around it. "If you are willing to stipulate to all of these things, then continuing this inquiry is foolish."

"Wait. We have to establish there *was* a murder." Flynn looked toward the witness chairs, past Harrison, to where Laiurish sat. "I have a few questions for the victim that should establish exactly what crime we're dealing with here."

Keey's antennae clattered against the table, and he unfurled two arms. "Out, all of you, but the Advocate, his aide, Harrison

Captain, and Laiurish. Go! If anyone breathes a word of what they have seen or heard here, you will return to the morgue sooner than you desire."

Once the extraneous witnesses had been scattered, the pathologist beckoned the Vaardysch forward with an arm. "Do you swear on your honor as a citizen of the Commonwealth to tell the truth in this matter, fully and completely?"

"I do." The little creature hauled himself up into the witness chair and folded all four arms across his chest.

Flynn smiled as he approached the witness and Keey. "Just a couple of questions. I'm bearing in mind the delicacy of your situation and the oath you extracted from those of us who are here now concerning questions about Vaardysch culture and nature."

The Vaardysch nodded. "Your consideration is appreciated."

Flynn glanced back at Meresin for a moment, then smiled. "My learned friend has pointed out to me that your explanation of how you came to be here, and how the Vaardysch reproduce, seems to be flawed. If one Vaardysch has to die for a new one to be born, you would have a stable population, but it never would have increased to the present size."

Laiurish leaned forward. "Forgive the misunderstanding. Under normal circumstances—and certainly those under which we evolved—when there was a sufficient supply of food, an individual would gorge himself, increasing his mass, and then a division would take place. It would require several years for the new person to attain adult status, no matter how long he had been harbored in his parent. Norp expected, upon his return to our world, to divest himself of me in this manner.

"What happened to him started a process that normally is used only in times of great environmental stress. There have been cases where one of our number died on a glacier and was frozen, only to be discovered millennia later. That individual's offspring, when thawed, was able to recount much of his parent's life. This is a boon to archeology. It is an added benefit of being such a hardy species."

The priest nodded. "I can see that. Now, I'm wondering, how much about your biology did Ashke know?"

"Nothing. Norp was not the sort to speak of forbidden subjects and, to be honest, given Ashke's history of drunkenness, the chance of his revealing confidential information was too high to take the risk."

argued . . . I think that created a mental block. Remembering the discussion would recall the trauma and the pain. . . ."

The coroner's antennae twitched. "Of course."

"And your parent's death and your birth—that is a purely natural phenomena?"

"It is."

"I'm thinking that reassures the court." Flynn smiled broadly. "After all, Doctor Keey was set to blame me for your resurrection."

The Vaardysch sat upright for a second and spoke with a detectable bit of sarcasm in his voice. "Ah, yes. Your prayer asking for me to be raised up."

"Yes."

Pressing all four hands to the tabletop, the Voulnir leaned forward. "I fail to discern a pattern to your questions, Advocate. You've established to my satisfaction that Norp was murdered and that Ashke Auran was the one who struck the knife blow that did it. Since Ashke knew nothing of Vaardysch biology, he could not have known his partner's memories would survive. His intent was to murder, and murder he did. Those *facts* are very clear. Am I to have *faith* that things are not as they seem to be?"

"One more question, Doctor, and I would be hoping all would become clear." Flynn turned to the witness. "As the doctor notes, Ashke knew nothing of your biology, so he couldn't have expected you to survive. The question is, given how hardy you knew your species to be, was there any doubt in *your* mind that you would *survive* the attack?"

"What?" The Vaardysch blinked. "I don't understand."

"I know you do." Flynn looked at Keey. "This is what happened, and I'm assuming you'll be able to confirm most of it with Vaardysch authorities when they get here.

"Ashke said Norp was slowing down, that they were going to return to Vaardysch at the end of this run. Norp had at least one child there. Laiurish here would be born and have a number of years before he would be in a position to take over the business, during which time someone else would have control of what he saw as his birthright. After all, he'd been the one traveling with Norp all these years.

"I'm supposing that as Norp slowed down, became less in control of himself, there were points where Laiurish here could exert influence, and he made the best of them. He arranged the embezzlement and didn't use it to provoke Ashke. When I

Flynn smiled. "Your explanation of how the Vaardysch

"Oh, very good point." Flynn stroked a hand over his chin. "You said that you shared your parent's memories, right up to the point when you were cut, then nothing until you revived."

"That's correct."

"And in Captain Harrison's investigation, he found that money had been embezzled from the business Norp and Ashke ran, using Ashke's computer authorization codes. You never mentioned Norp having discovered the irregularities."

Laiurish turned and looked at Keey. "I was still disoriented from revival, I fear. The shock of my parent's death, coupled with the fact that it was over the embezzlement that they spoke to Ashke, he spoke freely about the embezzlement, but refused to mention the violation of *ghoura* that provoked the attack. Laiurish used information Norp had learned to provoke Ashke into attacking his parent. Laiurish knew he would inherit the body and all of the business, since Ashke would surrender any claim on it by virtue of being convicted of Norp's murder."

Keey's eyestalks retracted closer to his exoskeleton. "A fantastic theory, but you can't prove any of it."

"But I can prove Laiurish lied."

"I did not!"

"But you did. You said you remembered nothing from cut to resurrection." Flynn folded his arms over his chest. "Still, you knew my prayer called for you to be raised up again. Now I'm knowing Doctor Keey didn't tell you what I said, being as how he takes it all as superstitious nonsense. And you can be claiming to have learned the prayer by accessing the local computer, but Captain Harrison has pulled all records of access to such data, and none are traced to you."

The Vaardysch started to rise, but the Voulnir clamped a hand onto its back. "Do not force me to do another autopsy on you."

"You've proven nothing."

Flynn shrugged. "I think the court will agree I've shown there was a murder here. You goaded Ashke into murdering your father. I'm thinking you should be held on charges of conspiracy to commit murder—the murder of Norp."

Keey hoisted the struggling Vaardysch into the air. "Harrison Captain, please conduct this one away. I order him held until suitable authorities from Vaardysch can arrive and take custody of him."

Flynn smiled. "And what about Ashke?"

Harrison laughed. "I think we need his cell for a real criminal."

"Release the Bouganshi." Keey all but threw the Vaardysch at the security officer. "And the rest of you—get out of my morgue."

AS UNIVERSAL AS trout were amid the stars, likewise it was quite common a predilection for sapient species to distill very smooth and fine-tasting single malt beverages. Father Flynn, the Unvorite, and Captain Harrison sat in a booth at the back of Clipp's Joint, savoring amber liquor.

The priest raised his glass and watched the light shine through the whisky. "I'm thinking it's from Nyvath IV, laid down about fifty years ago."

Meresin smiled. "Well, now the world is Nyvath III, but the whisky is eighty years old."

Harrison sipped his drink, then smiled. "Fifty, eighty, who cares? It's as smooth as Father Flynn was before Keey. I thought the good doctor was going to turn purple and explode when you brought up how your prayer had revived Laiurish."

Flynn smiled devilishly. "I'm thinking both Laiurish and Keey thought I was asking that question to needle Keey. That's why Laiurish answered the way he did, with disdain, to win

points with Keey."

"Playing into your hands." Meresin raised his glass in a salute. "That was the most entertaining of all the boring, stuffy procedural events I have witnessed."

"Thank you."

Harrison set his glass back on the table and narrowed his eyes. "I understand the whole scenario, Father, but what I don't get is why you didn't just accept that Ashke had done it. And I'm not going to let you tell us that it was just all too neat. Laiurish did build a great frame, but . . ."

The priest nodded, then rolled his glass back and forth between his palms. "I was all set to believe it, except for one thing. Laiurish is born of a trauma that kills his parent. He witnesses the whole thing, but never asks *why* it happened."

"But he couldn't ask, since he knew he had faked the embezzlement data." The security officer frowned. "He had to leave that for me to discover, otherwise the frame would have been just too perfect."

"True, but that's not quite the *why* I'm talking about. Your question goes to criminal motive. Mine is based on the injustice of tragedy." Flynn sighed. "One responsibility that comes with my vocation is helping folks deal with traumas. Murder, the death of a loved one, a child being taken by a horrible accident—all these things I counsel people through.

"I help them deal with why and how these things happen. It doesn't matter if you can draw a very clear chain of events leading up to a result; the people involved always want to know why it happened to their lover or parent or child. They question the injustice of the event, often wanting to know how God could let it happen. The desire to make sense of it in the grander scheme of things runs through all such situations, but Laiurish never asked that sort of question."

The Unvorite pursed his lips. "Perhaps, my friend, to ask that question is not in the Vaardysch nature."

Flynn shook his head. "It has to be, Meresin. For any species to make it this far, to have reached the stars, they have to be problem-solvers. That means they recognize patterns. Anytime a pattern goes against you, you ask why. He didn't ask, because he knew why—but he overlooked the fact that even if he knew everything, he'd still be asking that other 'why' question. He just wasn't doing what anyone else in that situation would do, which made me uneasy. Then, when Ashke wouldn't speak about the honor violation, but would talk about the embezzlement, the obvious motive for the Bouganshi vanished. That left Laiurish as the only individual who could profit from Norp's death. He had to have been behind it, and we just had to prove it."

Harrison smiled and raised his glass. "Well, then, here's to the man who recognized when a pattern wasn't a pattern and asked why."

"And to hoping," added Flynn with a solemn nod, "that the next time we deal with survivors of a tragedy, they'll be innocent victims, not agents of evil looking to profit from pain."

## About the Author

*Michael A. Stackpole is a writer and game designer best known for his* New York Times *bestselling* STAR WARS *X-Wing novels. His eighth and final* STAR WARS *novel,* Ruin, *was released in June. In his spare time he plays indoor soccer, rides a mountain bike, and takes in the occasional exorcism just for a change. He's currently working on novels and some more Purgatory Station stories featuring Father Flynn.*

## About the Illustrator

*Rob Day's illustrations have appeared in magazines throughout the U.S. including* Rolling Stone, Time, Sports Illustrated, *and* Smithsonian. *His work has also graced the covers of albums and book jackets. When he isn't painting, Day enjoys playing in the dirt and propagating prairie plants native to the Midwest. He lives in Indianapolis.*

*Venus is the venue for the hottest stunt of all time. Will it be a round trip, or (gulp) one way only?*

# High Jump

by Ben Bova

THE THINGS A MAN WILL DO FOR LOVE. § I had been Hal Prince's stunt double for more than five years. To the general public he was the greatest daredevil that ever lived, the handsome star of the most exciting adventure videos ever recorded, the tall sandy-haired guy with the flashing smile and twinkling eyes who always did his own stunts. § Well, I had known him when he was Aloysius Prizanski, back before he got his nose fixed, when he'd been a wannabe actor hungry enough to jump into a pool of blazing petrol from the bridge of an ocean liner.

Back then he did his own stunts, sure enough, but once he got so popular that he could command half a bill just for signing a contract, the insurance people insisted that he was just too goddamn valuable to risk.

So I did his stunts. His old pal. His asshole buddy. Ugly old me. It was no big secret in the industry, but as far as the general public was concerned, it was Handsome Hal himself who'd risked his own neck riding the hundred-g catapult at Moonbase into lunar orbit and sledding down the dry-ice-coated flank of Olympus Mons in nothing more than a Buckyball suit.

To say nothing of skydiving into Vesuvius while it was boiling out steam and the occasional blurp of hot lava. That one cost me three months in a burn recovery center, although I never let Hal know it. He thought I'd just gotten miffed at him and taken off to sulk.

Now I was going to do the high jump for him. On Venus, yet. Pop myself out of an orbiting spacecraft and drop all the way down to the planet's red-hot surface.

And I mean red-hot. The ground temperature down there is hot enough to melt aluminum. The air pressure is almost a hundred times what it is at sea level on Earth; like the pressure in the ocean, more than a kilometer down.

And by the way, Venus's air is almost all choking carbon dioxide. The clouds that cover the planet from pole to pole are made of sulfuric acid. And they're filled with bugs that eat metal, too.

The stunt was to jump from orbit and go all the way down to the ground. I had just come back from the patch-up job after the Vesuvius barbecue. Truth to tell, I was scared into constipation over this stunt.

But I didn't tell Hal. Or anybody else.

We all have our little secrets. My doubling for him was Hotshot Hal's secret. But I had a few of my own, too.

ILLUSTRATION BY MARK ZUG

Angel Santos doubled for whoever Hal's costar happened to be; if it weren't for her toughness and quick thinking, I'd have been fried inside old Vesuvius.

Angel was really beautiful: a face to die for, with big wide-set cornflower blue eyes, full bust, narrow waist, long legs—the works. Don't strain your eyes looking for her in any of Hal's videos, though; like me, she was strictly a stunt double, wearing whatever wigs and rigs were necessary to make her look like Hal's female costar—whoever she happened to be.

Angel could've been a star in her own right, but she had absolutely no interest in acting. She was hooked on the challenges of danger, just like me. We got along together great, two of a kind. She made me feel really good about myself, too. People looked up from their dinners when I walked into a restaurant with Angel on my arm. I mean, people never looked at me. Especially when Heroic Hal was anywhere in sight. Okay, I knew they were looking at Angel, not me, but I got respect for having her on my arm, at least. Boosted my machismo rating with the dumbshit ordinary folks.

**It didn't take long, though, before they started going out without me, just the**

But once Angel met with Hedonistic Hal, she got hooked on him. I didn't realize it at first. We'd all go out together, the three of us. It didn't take long, though, before they started going out without me, just the two of them. I was left out in the cold.

Then came the Venus jump.

I was thinking about packing it in. Let Hal the Heartbreaker get somebody else. He wasn't thinking about me at all anymore; he only had eyes for Angel. And she clung to him like he was the last life raft on the *Titanic.* She wasn't even involved in this Venus stunt; it was my trick alone. But she came along for the ride, all the way out to Venus—with Hal the Hunk.

But then I decided I'd do the stunt, after all. I wanted to be noticed; I wanted to break the lock the two of them had on each other, and the only way I knew to do that was to go through with the toughest, most daring and dangerous stunt that had ever been tried. Admiration, that's what I was after. I wanted to make their eyes shine—for me.

The High Jump: from Venus orbit all the way to the ground. And back, of course. None of the publicity flacks even mentioned the return trip, but I thought about that part of it a lot.

Okay, so we're in orbit around Venus—Hal, Angel, me, our crew of technicians and our tech directors, plus the ship's crew. We had decided to keep the ship's crew in the dark about my doubling for Hal. As far as they were concerned, I was just another techie. The fewer people outside the industry who knew about my doubling for him, the better.

So Hal's doing the mandatory media interview, all dolled up in a space suit, no less, with the helmet tucked under one arm. Standing there by the airlock hatch, he looks like a freaking Adonis, so help me, a Galahad, literally a knight in shining armor. And Angel's right there beside him, hanging on his arm, gazing up into his sparkling green eyes as if she's about to have an orgasm just looking at him.

The media people were all back on Earth, of course. We didn't want them on the ship with us—too much of a chance of them finding out about Hal's little secret. Since it took messages more than eight minutes to travel from them to us (and vice versa), they had prerecorded their questions and squirted them to us a couple of hours earlier.

Now Homeric Hal stood there like a young Lancelot and spoke foursquare into the camera, replying to each of their questions after only an hour or so to study the lines his publicity people had written for him.

"Yes," he said, with his patented careless grin, "I suppose we could use computer graphics for these stunts instead of doing them live. But I don't think the public would be so interested in a computer simulation. My fans want to see the real thing! It's the unexpected, the element of danger and risk, that excites the viewers."

The next questioner asked why Hal was so eager to risk his beautiful butt on these stunts.

He did his bashful routine, shrugging and scratching his head. "I don't really know. I guess I got hooked on the excitement of it all, and . . . and . . ."

He hesitated, as the script required. I thought sourly that what he's really hooked on is the money. Mucho bucks in this game. He let me take over the dangerous part of it easily enough.

". . . and . . . well, I guess it's the thrill of taking enormous risks and coming out alive. It makes your heart beat faster, that's for sure. Gets the old adrenaline pumping!"

His adrenaline was pumping, all right. But it wasn't about the risks of the Venus jump. It was because of Angel, draped over him and drinking in every syllable he uttered.

The interview ended at last. Hal's smile winked off. "Okay," he said, starting to peel off his suit. "Let's get to work."

To his credit, Hal gave me a farewell hug just before I stepped into the airlock. It was an awkward hug, with me in the bulky, thermally insulated space suit that we'd had specially built for this stunt.

"Take care of yourself, pal," he said, his voice gone husky.

"Don't I always?" I said back to him.

I stepped into the airlock and turned around to face him again. And there was Angel, right beside him. I blew a kiss—not an easy thing to do from inside my heatproofed helmet—as the hatch closed and sealed me in.

TWO TECHNICIANS WERE ALREADY OUTSIDE, IN SPACE suits of course, to help click me into the aeroshell. It wasn't a spacecraft, just a heat shield that carried the bare minimum of equipment I would need to make it down. I mean, that Humphries kid had reached Venus's surface a couple of years earlier, but he'd never walked on the planet's rocky terrain, as I was going to do. He'd been inside a specially designed submersible; it touched down on the surface, not him on his own

two feet. And he was supported by an even bigger ship that cruised a few kilometers above him, at that.

Plus, he'd landed in the highland mountains of Aphrodite. It's only four hundred degrees Celsius up there. Big deal. I was going down to the lowlands, where it's four-fifty, minimum, and doing it without a ship. Just me in a thermal suit and a handful of equipment.

Plus the heat shield, yeah, but that was just to get me through the entry phase. I mean, we were orbiting Venus at just about seven kilometers per second. You can't dip into the atmosphere in nothing but your high-tech long johns at that speed—not unless you want to make yourself into a shooting star.

I had no intention of becoming a cinder. The heat shield was flimsy enough, nothing more than a shallow bathtub coated on one side with a heat-absorbing plastic that boils off when it reaches fifteen hundred degrees. The boiled-off goop carries the heat away with it, leaving me safe on the other side of the shield. At least, that's the way it's supposed to work.

Believe me, the heat shield looked damn flimsy as I climbed into it. The techs checked out all my suit's systems and the connections, then clamped me into the shield's shallow protection. None of us said much while they got me properly clicked in.

Finally, they each patted my thick helmet and wished me luck. I thanked them, and they clambered through the airlock and shut the hatch. I was alone now, with nothing to keep me company but the automated voice of the computer ticking off the last three minutes of the countdown.

**two of them. I was left out in the cold. Then came the Venus jump.**

Three minutes can be a long time when you're alone hanging outside an orbiting spacecraft, a hundred million kilometers from blue skies and sunny beaches. I was locked into the heat shield, arms and legs stretched out like a guy in a B&D video, with nothing to do but worry about what was coming next.

To keep my nerves from twitching, I looked out through one corner of my faceplate at what little I could see of Venus.

She was gorgeous! The massive, curving bulk of the planet gleamed like a gigantic golden lamp, a brilliant saffron-yellow expanse against the cold blackness of space. She glowed like a thing alive. Goddess of beauty, sure enough. At first I thought the cloud deck was as solid and unvarying as a sphere of gold. Then I saw that I could make out streamers among the clouds, slightly darker stretches, patches where the amber yellowish clouds billowed up slightly. I stared at those fantastically incredible clouds. They shifted and changed as I watched. It was almost like staring into a fire, endlessly fascinating, hypnotic.

A human voice broke into my enchantment. "You okay out there?"

"Sure," I snapped. "I'm fine."

"Separation in thirty seconds." It was the voice of our tech controller in my helmet earphones. "Speak now, or forever hold your jockstrap."

"Let 'er rip," I said, in time-honored, devil-may-care fashion. Just in case some wiseass was eavesdropping with a recorder.

"Five . . . four . . ." Well, you know the rest. I felt a quiver and then a not-too-gentle push against the small of my back: the latches releasing and then the spring-loaded actuator pushing my aeroshell away from the orbiting spacecraft.

And there I was, as the flyguys say, watching our orbiter dwindle away from me. Before I had time to grit my teeth, the retrorockets kicked in—and I mean kicked. I couldn't hear anything in the vacuum of space, naturally, but I sure felt it. The whole goddamn aeroshell rattled like a studio set in an earthquake. I heard a kind of a roar inside my head; not sound, really, so much as my bones picking up the vibrations as the rockets tried to shake me to death.

I hung on—nothing else I could do—for the forty-five seconds of retro burn, knowing the cameras from the ship were getting every second of it in glorious full color. Every bone in my body was quivering like a struck gong. I wondered if I'd get out of this with any teeth unchipped.

Then suddenly it all stopped. Either I was dead, or the rockets had burned out.

"Retro burn complete," said the controller calmly. "You are go for entry into Venus's atmosphere."

Stretched out inside this shallow soap dish of an aeroshell, I nodded inside my helmet. Now comes the fun part, I said to myself.

The first thing I noticed was streaks of bright light flicking past me. Hitting the top of the atmosphere at seven klicks per second heated up the gases to incandescence. Pretty soon I was surrounded by plasma boiling off the heat shield and billowing out past me. I lay there on my back, helpless as a newborn rat, with white-hot gas streaming past the edges of my shell. I could hear noise now, a high-pitched whining that deepened into the kind of roar you hear when you open a blast furnace.

And the shell was shaking again, worse than before. If I hadn't been latched down, and if my protective suit hadn't been well padded, I would have been pummeled to jelly. Mouth protector, I thought as I tasted blood. I should've brought a mouth protector. I tried to keep my mouth open so I wouldn't chew off my tongue or bite a hole through my cheek and cursed myself for the oversight.

The controller tried to tell me something, but the plasma sheath around the rapidly descending aeroshell broke up his radio message into garbled little hashes of static. I tried to focus my eyes on the data screen inside my helmet, next to the faceplate, but everything was jouncing around so bad I couldn't see anything but a multicolored blur.

Must be close to breakup, I thought.

And bang! the aeroshell clamps unlatched, and the shell itself snapped into a dozen separate pieces, just the way it was designed to. Gave me a jolt, let me tell you.

So now I was in free fall, dropping like a stone toward the top layer of clouds. The shaking eased off enough that I could read the altimeter inside my helmet. I passed eighty kilometers like a doomed soul falling into hell.

My biggest worry was the superrotation winds. They could

blow me halfway around the planet, and I'd miss my landing spot. That's where the return rocket vehicle was sitting on the surface, waiting for me in that baking heat and corrosive sulfur-laced atmosphere.

Venus turns very slowly; its "day" is 243 Earth days long—that's how long it takes the planet to make one complete turn around its axis. So the Sun blazes down on the subsolar point, the spot where the Sun is directly overhead, like a freaking blowtorch. The upper atmosphere, blast-heated like that, develops winds of four hundred kilometers per hour and more that rush around the entire planet in a few days. In a way, they're like the jet streams on Earth, only bigger and more powerful.

If I got caught in one of those superpowerful jet streams, I'd be blown so far away from my landing point that I'd never make it back to the return vehicle. Then I'd have a choice of whether I wanted to be baked to death or suffocated.

So the plan was to cannonball through the superrotation's jet streams as fast as possible, get down into the lower altitudes where the atmosphere thickens into soup and the winds are smothered into sluggish little nothings.

That was the plan.

I was dropping like a brick, headfirst, the wind screeching past me and the billowing sickly yellow-gray clouds rushing up.

"How'm I doing?" I yelled into my helmet mike.

"Drifting off course," came the director's voice, calm as a guy ordering a margarita back in L.A.

I looked to the left of my faceplate, at the miniscreen that showed my position. I was a red dot; the return vehicle was a green dot. There were concentric circles around the green dot. If I was within two circles of the center, I'd be okay. The red dot was already close to the edge of the second circle.

"Better do some maneuvering," the director suggested, flat as Kansas.

"Too soon," I said. The maneuvering jets on the back of my suit carried only so much fuel. Use 'em up now, and I'd be helpless later.

But that red dot that was me was drifting past the second circle. I was in trouble.

"Maneuver!" the director snapped. I had to smile; at least I got his blood pressure up a little.

"No sense shoveling shit against the tide," I said. "I'll wait until I'm under the jet stream."

"You'll be too far!" He was getting really clanked up now.

My eyes flicked back and forth. The miniscreen on my right showed I was passing seventy klicks, almost into the top cloud deck. The superrotation winds should be dying down. But the radar plot on the left of my faceplate showed my red dot almost off the chart completely.

"Check pressure," I called out. The altimeter readout was replaced by a rapidly changing set of numbers. According to the probe sampling the air I was falling through, the pressure was rising steeply.

I nodded inside the helmet. Yes, the radar plot showed I wasn't drifting any farther from the landing spot.

"Cranking up the jets," I said, wriggling my right arm out of the suit's sleeve to press the actuator stud on the control board built inside the suit's chest cavity. We had decided to keep all the controls inside the suit, safe from the corrosive, oven-hot atmosphere outside.

"About time," groused the director.

"No sweat," I told him. Which, I realized, wasn't exactly true. I was perspiring enough to notice it. I wiped my brow before sliding my arm back into its sleeve.

The jets came on, gently at first and then accelerating slowly. I twisted my body around and spread my arms out. That motion unfolded the airfoils that ordinarily wrapped around my sleeves. Like a jet-propelled bat, I dove into the sulfuric acid clouds, watching the radar plot as my little red dot started edging closer to the green dot.

My suit's exterior was all ceramicized plastic, for three reasons. One, the material was a good heat insulator, and I was going to need all the protection from Venus's fiery hell that I could get. Two, the stuff was impervious to sulfuric acid—of which the cloud droplets had plenty. Three, it would not be attacked by the bugs that lived in those sulfuric acid clouds.

The aerobacteria had destroyed the first two ships that had entered Venus's clouds. They feast on metals, gobble 'em up the way a macrovitamin faddist gulps pills. The exobiologists had assured us that those bugs would not even nibble at the plastic exterior of my suit.

There was plenty of metal in the suit, a whole candy store's worth, as far as the bugs were concerned. But it was all covered by thick layers of plastic. I hoped.

I shook my head inside the helmet. "I'm not going to make the rendezvous." Silence

Once I was in the clouds, my vision was reduced to zero. From the outside mikes I could hear wind whistling past, but the altimeter showed that my rate of fall was slowing. The atmosphere was getting thicker, making it harder to gain headway.

The jets burped once, twice, then gave out. Fuel exhausted. And I was only between the first and second circles on the radar plot. I was sailing through the heavier layers of cloud, heading for the rendezvous spot like a soaring bird.

"Looking good," the director said encouragingly.

I shook my head inside the helmet. "I'm not going to make the rendezvous."

Silence for a few heartbeats. Then: "So you'll have to walk a bit."

"Yeah. Right."

The thermal suit would hold up for maybe an hour on the surface, not much more. The problem was heat rejection. Or, rather, not enough of it.

Down there on the surface, where the freaking rocks are red hot and the air is thicker than sea water, it's four hundred fifty degrees Celsius. More, in some places. No matter how well the

suit is built, that heat seeps in on you, sooner or later. So the engineers had built a heat-rejection system into my suit: slugs of special alloy that melted at four hundred Celsius. The alloy absorbed heat, melted, and was squirted out of the suit, taking the heat with it.

It was pretty crude, but it worked. It would keep my suit's interior reasonably cool. So the engineers promised. After about one hour, though, the suit would run out of alloy and I'd start to bake; my protective suit would turn into a pretty efficient steam cooker.

That's what I had to look forward to. That's why I was trying my damnedest to land as close to that return ship as possible.

I broke out of the top cloud deck at last, and for a few minutes I was in relatively clear air. Clouds above me, more clouds below. I was still gliding, but more and more slowly as the air pressure built up steeply. At least I was past the bugs. The temperature outside was approaching a hundred degrees, the boiling point of water. The bugs couldn't survive in that heat.

Could I?

Lightning flashed in my eyes, scaring the bejesus out of me. Then came a slow, rolling rumble of thunder. The lightning must have been pretty damn close.

That second cloud deck was alive with lightning. It crackled all around me, thunder booming so loud and continuously that I shut off the outside mikes. Still the noise rattled me like an artillery barrage. Had I come down in the middle of a thunderstorm? Was I somehow attracting the lightning? You get all kinds of scary thoughts. As I dropped deeper and deeper into Venus's hot, heavy air, my mind filled with what-ifs and should-haves.

The lightning seemed to be only in the second cloud deck. I watched it flickering all across the sky as I fell through the brief clear space between the second and the third deck. It was almost pretty, at this distance.

The third and last of the cloud decks was also the thinnest. At just a smidge above fifty kilometers, I glided through its underbelly and saw the landscape of Venus with my own eyes.

I stared down at a distant landscape of barren rock, utter desolation, nothing but bare hard stony ground as far as the eye could see, naked rock in shades of gray and darker gray, with faint streaks here and there of lighter stuff, almost like talc or pumice.

I saw a series of domes, and farther in the distance the bare rocky ground seemed wrinkled, as if something had squeezed it hard. There were mountains out near the horizon, although that view might have been a distortion caused by the density of the thick atmosphere, like trying to judge shapes deep underwater.

Below me was an immense crater, maybe fifty klicks across. It looked sharp-edged, new. But they'd told me there wasn't much erosion going on down there, despite the heat and the corrosive atmosphere. It took a long time for craters to be erased on Venus—half a billion years or more.

The air was so thick now that I was scuba diving rather than gliding. The bat wings were still useful, but now I had to flap my arms to push through the mushy atmosphere. The servomotors in my shoulder joints buzzed and whined; without them I wouldn't have the muscular strength to swim for very long.

I was still a long way from the rendezvous point, I saw. Inching closer, but only inching.

Then I got an idea. If Mohammed can't make it to the mountain, why not get the mountain to come to Mohammed?

"Can you hop the ship toward me?" I asked.

Nothing but static in my earphones.

I yelled and changed frequencies and hollered some more. Nothing. The electrical storm in the second cloud deck must have been screwing up my radio link. I was on my own, just me and the planet Venus.

She looks so beautiful from a distance, I thought. She glows so bright and lovely in the night sky that just about every culture on Earth has called her after their goddess of beauty and love: Aphrodite, Inanna, Ishtar, Astarte, Venus. I've watched her when she's the dazzling evening star, brighter than anything in the sky except the Sun and Moon. I've seen her when she's the beckoning morning star, harbinger of the new day. Always she shines like a precious jewel.

Even when we were in orbit around her, she glowed like an incredible golden sphere. But once you see her really close up, especially when you've gone through the clouds to look at her unadorned face, she isn't beautiful anymore. She looks like hell.

And that's where I was going—down into that inferno. The air was so thick now that I was really pushing myself through it, slowly sinking, struggling to get as close as possible to the spot where the return vehicle was waiting for me. If I hadn't been encased in the heavy thermal suit, I guess I would've hovered in the atmosphere, floating like a chunk of meat in a big stewpot, slowly cooking.

*for a few heartbeats. Then, "So you'll have to walk a bit."*

I was passing over a big, pancake-shaped area, a circular mass of what must have once been molten lava. It was frozen into solid stone now, if "frozen" is a word you can use for ground that's more than four times hotter than boiling water. I caught a glimpse of mountains off to my left, but I was still so high they looked like wrinkles.

My radar tracking plot had gone blank. The link from the ship up in orbit was shot, together with my voice channels. Pulling my arm out of its sleeve again, I poked on the control panel until my radio receiver picked up the signal from the return vehicle's radar beacon. I displayed it on my miniscreen. Now my position was in the center of the display; the ship was more than sixty kilometers off to my left.

Sixty klicks! I'd never make that distance on foot. Could I sail that far before hitting the ground?

We had picked the rendezvous site for two reasons. One, it was about as low—and therefore as hot—as you could get in Venus's equatorial region. Two, it was the area where the old Russian spacecraft *Venera 5* had landed more than a century

ago. The video's producers thought it'd be a neat extra if we could bring back imagery of whatever's left of the old clunker.

Down I swam. I really was swimming now, thrashing my arms and legs, making the suit's servomotors wheeze and grind with the effort. I was sweating a lot, blinking at the stinging salty drops that leaked down into my eyes, asking myself over and again if Hal was worth all this. A guy could get killed!

The ground came up ever so slowly. I felt like an old wooden sailing ship sunk in battle, sinking gently, gently to the bottom of the ocean. On a world that had never seen wood, or liquid water, or felt a foot on its baking stony surface.

At last I touched the ground. Like a skin diver reaching the bottom of the ocean, I eased down the final few meters and let my heavily booted feet make contact with the red-hot rock.

"I'm down," I said, for the record. I didn't know if they could hear me, up in orbit, but the suit's recorders in their "black box" safety capsules would store my words even if I didn't make it back up.

I glanced at the radar plot. My antennas were picking up the return vehicle's beacon loud and clear. It was only seven kilometers from where I stood.

Seven klicks. In four hundred fifty degrees. Just a nice summer stroll on the surface of Venus.

Despite the triple layer of clouds that smothered the whole planet, there was plenty of light down at the surface. Sort of like an overcast day in Seattle or Dublin. I could see all the way out to the horizon. The air was so thick, though, that it was sort of like looking through water. The horizon warped up around the edges of my vision, like the way water dimples in a slim glass tube.

The suit felt damn heavy; it weighed more than eighty kilos on Earth, and just about ninety percent of that here on Venus. Call it seventy-some kilos. If it hadn't been for the servomotors on the suit's legs, I wouldn't have been able to go more than a few meters.

So I started plodding in the direction my radar screen indicated. Clump with one boot, squeak, groan, click go the servomotors, thump goes the other boot. Over and over again.

I kept up a running commentary, for the record. If and when I got back to Hal and the others, they would morph his voice for mine and have a fine step-by-step narration of the first stroll on Venus. Ought to get a nice bonus out of it, even if it went to my heirs because I got fried to a crisp walking that walk.

It was hot. And getting hotter. After a while I started to feel a little dizzy, weak in the knees. Dehydration. At least I wasn't sweating so much. But I knew if I didn't drink some water and swallow a salt pill, I'd be dead before long. Trouble was, every sip of water I drank meant less water for the suit's cooling system. And there wasn't a recycler in the suit; no room for it. Besides, I was only supposed to be on the surface for an hour or less.

"Anyway," thoughtful Hal had told the safety engineers, "who wants to drink his own recycled piss and sweat?"

I wouldn't mind, I thought. Not here and now.

On I walked, creeping closer to the return vehicle. I tried to go into a meditative state while I was walking, letting the servomotors' wheezing and groaning lull me into a blankness so I could keep on moving automatically and let all the pain and discomfort slip out of my thoughts.

Didn't work. The suit's left leg was chafing against my crotch. Both my legs were tiring fast. My back itched. The air seemed to be getting stale; I started coughing. My vision was blurring, too.

And then the snake made a grab for me.

Venusian snakes have nothing in common with the snakes we have on Earth. They are feeding arms of underground creatures, big bulbous ugly sluglike things that live under the red-hot surface rocks. Don't ask me how anything can live in temperatures four or five times hotter than boiling water. The scientists say they're made of silicones and have molten sulfur for blood. All I saw was a set of their damn feeding arms—snakes.

There's a basic human reaction to the sudden sight of a snake. Run away!

The snake suddenly popped up in front of me, slithering out of its hole. I hopped a meter and a half, even with the weight of the suit, stumbled, and fell flat on my back. Well, not flat on my back; there was too much equipment strapped onto me for that. But I hit the ground, and all the air whooshed out of my lungs.

Faster than an eyeblink, three snakes wrapped themselves around me. I saw another two wavering in the air, standing up like quivering antennas.

"No metal!" I screamed, as if they could hear or understand. "No metal!"

That didn't seem to bother them at all. They had latched onto me, and they weren't going to let go. Could they sense the metal beneath my suit's plastic exterior? Could they burn their way through to it? Liquid sulfur would do the job pretty damn quick.

I couldn't sit up, not with their greedy arms wrapped all over me. I grabbed one of the snakes and pried it off me. It took both hands and all the strength of my servo-aided muscles. The underside of the thing had long, narrow mouths, twitching open and closed constantly. Disgusting. There was some kind of filament around the lips, too. Really loathsome.

Fighting an urge to barf, I bent the snake over backward, trying to break it. No go. It was rubbery and flexible as a garden hose. Blazing hot anger boiled up in me, real fury. These brainless sons of bitches were trying to kill me! I twisted it, pounded its end on the red-hot rock, fought one leg loose, and stomped on it with my boot.

It must have decided I wasn't edible. Or maybe I was giving it more pain than it wanted. All of a sudden, all the snakes let loose of me and snapped back into their holes, as if they had

**Both my legs were tiring fast. The air seemed to be getting stale. My vision was**

springs attached to their other ends. Zip! and they were gone.

Shaking inside, I slowly got to my feet again. Some scientists have a theory that the snakes are all connected to one huge underground organism. Or maybe there's more than one, but they communicate with each other. Either way, once it—or they—decided I was too much trouble to deal with, I wasn't bothered with 'em again.

But I didn't know that. I staggered on toward the return vehicle, scared, battered, bone weary, and very, very hot.

And there was the old Russian craft, up ahead. At first I thought it was a mirage, but sure enough it was the spacecraft, sitting on a little rise in the ground like a forgotten old monument to past glory.

Maybe I was just too tired to care, but it looked unimpressive to me. Not much more than a small round disc that had sagged and half collapsed on one side to reveal the crumpled remains of a dull metal ball beneath it, sitting on those baking, red-hot rocks. It reminded me of an old-fashioned can of soda pop that had been crushed by some powerful hand.

I staggered over to it and touched the collapsed metal sphere. It crumbled into powder. Sitting there for more than a century in this heat, in an atmosphere loaded with corrosive sulfur and chlorine compounds, the metal had just turned to dust. Like the mummies in old horror shows. Nothing left but dust.

I walked slowly around it anyway, letting my helmet camera record a full three-sixty view. History. The first manmade object to make it to the surface of another planet.

Just like me. I was going to be history, too. I was baking inside my suit. The temperature readout was hitting ninety, damn near two hundred on the old Fahrenheit scale, and that was inside the suit. I was being broiled alive. If it weren't for my monomolecular long johns, my skin would've been blistering.

Plodding along, I left old *Venera 5* behind me, following the beep-beep of the return ship's beacon, hoping it was working okay and I was heading in the right direction. Can there be an electronic mirage? I mean, could I be wandering off into the oven-hot wilderness, chasing a signal that got warped somehow and is leading me away from the return vehicle?

Is there a return vehicle at all? I started to wonder. Maybe this is Hal's way of getting rid of me. Get the competition out of the way. Then it's him and Angel without any complications. No, that doesn't make any sense, I told myself. You're getting paranoid in this heat, going crazy.

I pushed on, one booted foot in front of the other. Wasn't making footprints, though; hot though it may be, the surface of Venus is solid rock. At least it is here. Solid and scorching hot. Over on the nightside, from what I'd heard, you can see the ground glowing red-hot.

"... get through?" crackled in my earphones. "Do you copy?"

"I hear you!" I shouted, my throat so dry that my voice cracked. The storm, the electrical interference, must have ended. Or moved off.

Nothing but hissing static came through. Then the director's voice: "... signal's weak ... up gain?" His message was breaking up. There was still a lot of interference between the orbiter and me.

"Am I on the right track?" I asked. "According to my radar plot, I'm still five klicks from the ship. Please confirm."

Hal's voice crackled in my earphones. "*Venera Five!* Great video, pal!"

Terrific. The video got through, but our voice link is chopped up all to hell and back.

Then it hit me. If the video link is working, switch the voice communication to that channel. I told them what I was doing while I made the change on the comm panel.

"Can you hear me better now?" I asked, my voice still cracked and dry as dehydrated dust.

No answer. Crap, I thought, it isn't working.

Then, "We hear you. Weak but clear. Are you okay?"

I can't tell you how much better I felt with a solid link back to the orbiter. It didn't really change things. I was just as tired and hot and far from safety as before. But I wasn't alone anymore.

"According to the signals from your beacon and the return vehicle," the director said, as calmly professional as ever, "you are less than five klicks from the ship."

"Five klicks, copy."

"That distance holds good if there's no atmospheric distortion warping the signals," he added.

"Thanks a lot," I groused.

Hal came on again and talked to me nonstop, trying to buck me up, keep me going. At first I wondered why he was doing the pep talk routine; then I realized that I must be dragging along pretty damn slow. I put my life-support graph on the helmet screen. Yeah, air was low, water lower, and I was almost out of the heat-absorbing alloy.

I looked over my shoulder and saw the ragged trail of molten alloy I was leaving behind me, like a robot with diarrhea. The alloy was shiny, new-looking against the cracked, worn old rocks. And there were lines curving along the ground, converging on the trail every few meters.

Snakes! I realized. They like metals. I turned back toward the distant rescue vehicle and made tracks as fast as I could.

Which wasn't all that fast. Inside the cumbersome suit, I felt like Frankenstein's monster trying to play basketball, lumbering along painfully slow.

**blurring, too. And then the snake made a grab for me.**

I must have been describing all this into my helmet mike, talking nonstop. Hal kept talking, too.

And then the servo on my right knee seized up. The knee just froze, half bent, and I toppled over on my face with a thump that whacked my nose against the helmet's faceplate. Good thing, in a way. The pain kept me from blacking out. Blood spattered over my readout screens and the lower half of the faceplate. I screamed every obscenity I'd ever heard.

Hal and the controller were both yelling at me. "What happened? What's wrong?"

Through the pain of my broken nose, I told them while I tried to get back on my feet. No go. My right leg was frozen in

the half-bent position; there was no way I could walk. Blood was gushing down my throat.

So I crawled. Coughing, choking on my own blood, I crawled on my hands and knees, scraping along the blazing hot rocks with those damn snakes slithering behind me, feasting on the metal alloy trail I was leaving.

The radio crapped out again. Nothing but mumbles and hisses, with an occasional crackle so loud that I figured it must be from thunder. I couldn't look up to see if the clouds were flickering with light, but I saw a strange, sullen glow off on the horizon to my left.

"I can't go much farther."

"... volcano ..." came through the earphones.

Just what I needed. A volcanic eruption. It was too far away to be a direct threat, but in the undersea-thick atmosphere down on Venus's surface, volcanic eruptions can cause something like tidal waves, huge pressure waves that can push boulders for hundreds of kilometers.

Or knock over a flimsy rocket vehicle that's sitting on the plain waiting for me to reach it.

I'm not going to make it, I told myself.

"The hell you're not!" Hal snapped. I hadn't realized I'd spoken the words.

"I can't go much farther," I said, glad that at least the radio link was back. "Running out of air, water, everything ..."

"Hang tight, pal," he insisted. "Don't give up."

I muttered something about snake food. I rolled over on my side, completely exhausted, and saw that the snakes were gobbling up my alloy trail, getting closer to the source of the metal—me—all the time.

And then suddenly they all disappeared, reeled back into their holes so fast my eyes couldn't follow it.

Why? What would make them—

I heard a roar. A high-pitched banshee wail, really. Looking up as well as I could through the bloodied faceplate, I saw the sweetest sight of my life. A squat, bullet-shaped chunk of metal with a cluster of jet pods hanging off its ass end and three spindly, awkward legs unfolding out of its sides.

The return vehicle settled gently on the rocks half a dozen meters in front of me and released its jet pods with an ungainly thump. I crawled over to it with the last bit of my strength. The airlock hatch popped open, and I hauled myself up into it.

The airlock was about as big as a shoebox, but I tucked myself inside and leaned on the stud that closed the hatch and sealed it. I just sat there in that tight little metal cubbyhole and gasped into my helmet mike, "Take me up."

The acceleration from the booster rockets knocked me out.

When I came to, I was on an air-cushion mattress in the orbiter's tiny infirmary. My face was completely bandaged except for holes for my eyes and mouth. They must have pumped enough painkillers in me to pacify the whole subcontinent of India. I felt somewhere between numb and floating.

Hal was there at my bedside. And Angel.

They had flown the return vehicle to me, of course, once they got a good fix on my position. The little ship's cameras even got a good shot of the erupting volcano as it lifted up through the atmosphere—ahead of the pressure wave, thank goodness—and carried me safely to orbit.

"You did a great job, pal," Hunky Hal said, smiling his megawatt smile at me.

"We were so frightened," Angel said. "When the radio link went dead, we thought ..."

"Me too," I whispered. My voice wasn't up to anything more.

"We'll get an Oscar for this one," Hal said. "For sure."

For sure.

"Get some rest now," he went on. "I've gotta get over to the processing guys and see how they're morphing your video imagery."

I nodded. Angel looked down at me, sweet as her namesake, then turned to Hal. He slid an arm around her waist, and together they left me lying there in the infirmary.

Lovers. I felt my heart break. Everything I'd done, all that I'd gone through, and it didn't help at all. He wanted her now.

And I still loved him so.

### About the Author

*Dr. Ben Bova's latest novel,* Venus, *is his 101st published book. He is the publisher of* GalaxyOnline.com, *the new Internet science and science fiction supersite. Bova is president emeritus of the National Space Society, a former president of Science Fiction Writers of America, a Fellow of the British Interplanetary Society, and has been contributing stories and articles to* AMAZING Stories *since 1960.*

### About the Illustrator

*A former model for* Overnight Male *clothing catalog, and twice runner-up in Soho's famous "Rack of Man" body pageant, Mark Zug possesses a spectacular physique which comes in handy when modeling for his own illustrations.*

## Amazing facts

THE SUBJECT *of this August 1947* AMAZING Stories *cover seems to gasp while contemplating "the ghastly future of man if he uses the atom for war." The illustration accompanied the 65,000-word story "So Shall Ye Reap!" by a contributor who used the alias of Rog Phillips.*

*In "The Observatory" column, then editor Raymond A. Palmer said that the real author of "So Shall Ye Reap!" was not a writer at all. "He can write, and does, but he's really a top-modern scientific mind, and he's telling us things through fiction that we ought to know, but the rest of the world has neither the knowledge nor the guts to tell us." Palmer would not reveal the scientist's real name.*

*Who was this "top-modern scientific mind" who used fiction to give the world a vivid picture of post-atomic disaster?*

AMAZING
AUGUST 25
STORIES
The Ghastly Future of Man If He Uses The Atom for War!
SO SHALL YE REAP!
by ROG PHILLIPS

# Disassembly

*Revenge is a dish best served*
*in microscopically small portions.*

BY ANGUS MACDONALD

ILLUSTRATION BY
ANASTASIA VASILAKIS

THE WHEELS OF THE CART squeaked as she pushed it along the corridor. She concentrated on the wheels, on how one or more of them must be rubbing on the cheap bushings, not lubricated properly when built and not made to be oiled later. That knowledge, that memory of where the screeching sounds came from, kept the sounds from turning into the wails of her sisters, her mother, her grandmother. Especially her grandmother, whose sack of charms and fetishes she carried in her apron now.

Her fingers whitened as she gripped the cart's handle. The handle was smooth and rounded; it didn't feel at all like the underside of the rusty bedframe she had clutched, where her grandmother had hidden her seconds before the door was kicked in. The glasses and bottles on the cart clattered, and she knew they didn't sound at all like the jingling of opened buckles, of keys in khaki pockets above her.

After today, those sounds wouldn't be coming to her again.

• • •

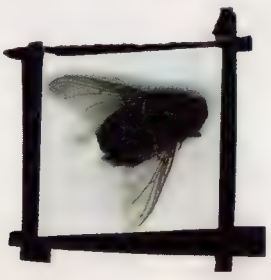
Completed, programmed, prototype-tested, with timers and key codes set, several thousand stage-one factories emerge from the generator (a slowly pulsing, slick mass in a plastic washtub, cables trailing over the edge to a stained sheet metal case) and drip into the cheap but well-washed cup. Carried out of the shack, they cascade into the bin, then begin their twin tasks of staying on the surface of the heap and reproducing. They get the energy easily enough from the kitchen scraps and poultry offal.

After a few days the factories have multiplied a millionfold, forming a gossamer layer of low-energy activity covering the heap. Every housefly that alights, then arises, journeying onward over the capital's barrio shanties and government palaces, carries tens of thousands of them on its feet.

• • •

I was no happier than I had to be about meeting the colonel. The embassy staff, our overt personnel, should have handled it better. Reports were that he was close to panic over the rumors (well founded, to be sure) that we might be abandoning him or, worse, backing the rebels ourselves. The eventual outcome was obvious to him as well as to us: His army, his party, the structure he had put together piece by piece over the decades, was about to slide apart.

On the plus side, reports depicted him as frightened, not just for his power, but for his wealth and his life. When I actually saw him, on his blustery arrival in the conference room, those accounts of his attitude were vindicated: He kept gulping mineral water and, to my amazement, surreptitiously biting his nails. I stifled a smile as I remembered my uncle, the realty broker, and his favorite phrase: "motivated seller."



By the end of the session, with a crew of women clearing away the refreshments (our embassy's people felt he'd be further cowed by the insult of having servants traipse in before we were done with him, but he was in fact too frightened to notice), we had extracted an agreement for elections in six months. For once, it was a deal we could force him to honor. He thanked me, in fact, when I openly guaranteed safety for his property and person.

I waited a few seconds before adding that the offer naturally included his family and personal staff.

He looked surprised, then agreed.

The servant who was clearing off the table raised her head and gazed at him then. I was the only one who saw her stare, but I knew we all felt what she felt. After a moment, she saw me observing her and resumed her work, sweeping his nail-bitings and other small debris off the tabletop with a rag before wiping away spilled water and the sweat from his hands.

Back upstairs, I felt something I thought I'd grown out of years before: the urge to shower immediately after negotiating with a head of state.

• • •

Once attached to a fly's feet, the stage-one factories do nothing but hang on, unless certain narrow chemical conditions arise in their surroundings. Even so, some mistakenly let go of their flies, responding to the traces of sweat on abandoned shoes or scraps of paper. They destroy themselves trying to burrow through cellulose or cloth to nonexistent blood vessels, dying by the microgram all over the capital.

Of course, millions of others, in hundreds of places, actually sink through real skin and arrive in real veins. And those are just from the first day's batch.

• • •

She and the other servants were summoned back to the conference room later than she expected, and she was surprised to see the officials still in their chairs. Obviously, the crew was expected to clear away the water bottles and glasses while the talks continued.

Logistically, the officials' presence made no difference to her plans and hopes, but seeing his face again took the breath out of her. She had searched those features over the decades, in her memory and later on posters and television screens, trying to see the outward signs of monstrosity. But she always saw only the congenial face of a man like any other, somehow separate from the acts of the mind that crouched behind the unremarkable eyes.

She gathered her thoughts and started to work, moving around the table, standing the glasses inverted on the tray as the men spoke. She knew they assumed that English was opaque to the servants, but was still glad to learn that the patrons were gently untying the strings from this particular puppet. Though she knew that no "peaceful transition of power" would affect his fate, it was good that his party's legitimacy would meet its own distinct demise. The organization's own members would dismantle the structure once it became clear they could expect no more sustenance from its trough.

Still, at one point his inhumanity made her stare at him with loathing. She started when she felt eyes on her, from one of the "diplomats." Turning involuntarily to face the man, she cursed her foolish reflex: It was Morris, who'd run against her in the Graduate Student Assembly at UCLA. Before she had completed her doctorate, before she went home and realized what she could do with her learning.

Morris, however, glanced away immediately, showing no sign of recognition. He obviously didn't remember her at that moment; she could only pray he wouldn't later on.

Again, she pulled herself together and continued.

Her plan had been to make sure that the one glass, the one with the smears she needed to pull apart and learn, would be the only one she would lay sideways on the tray. But she was overjoyed to see that he still bit his nails deeply, harrowing the flesh of his fingertips, just as he had when he'd left the ruined hut.

• • •

Not so much swimming as surfing, the factories circulate in a multitude of bloodstreams. When they can, they attach themselves to vessel walls and extract nuclei from the host cells. They are looking for a password. Each rooted factory tries five times, reading DNA from five different nearby cells. After five failures, it simply falls apart, dispersing as hundreds of more or less inert molecules that will wash from the system via the kidneys.

Eventually, of course, a few thousand of the factories get lucky.

• • •

On the plane home, during a nap, the buswoman's face came back to me. I saw her lips move and put words to the picture—stirring words about the need for better wheelchair access to a new nanotechnology lab. Starting awake, I realized I'd been dreaming about—well, what *was* her name? The one who beat me in that student government runoff.

I nodded back off, vaguely ashamed at my reptile-brain's assertion that they all look alike.

• • •

The few thousand factories that score, that find the code they seek, finally begin the real work. They pull what they need from the cells and plasma sluicing past them and fill their remaining time manufacturing the stage-two factories: the ones that can swim. These start moving along the bloodstream, stopping every tenth of a second to sample the code again, then continuing. After completing one hundred twenty-eight consecutive matches (usually in just under fifty seconds), each spends about two minutes making one hundred twenty-eight converters. Every stage-two factory will continue this conditional sequence—swimming, matching, making—until the environment no longer supports it.

moment; she could only pray he wouldn't later on.

Like the stage-one factories (which have all destroyed themselves by now, over the whole of the country, from ocean to gulf, because a certain date has passed according to their hard-coded internal clocks), the converters can't swim. They can only drift along, until they meet or enter what they're meant to convert.

• • •

It took her longer than she had hoped, but not as long as she had allowed for. So she still had weeks before the elections, plenty of time to nail down the codon sequences, to reconstruct work lost during the frequent slum power failures, plenty of time to make sure there would be enough flies.

She especially had time to laugh with her grandmother's memory, as she looked at the faded bruja sack hung on the wall above the assembler tub. "I couldn't get any hair, huh? But this is good enough." Better, in fact: She'd known since her undergrad days that hair is a dead excretion and holds no genetics, but the nail-bitings she'd taken were attached to those tiny remnants of flesh, with the helices folded within.

• • •

The converters inevitably lodge against, and inside, their target material and begin debasing it, creating free ions of carbon and molecules of metallic calcium. It's a difficult process, requiring energy from the motion of blood plasma, and ultimately wearing down—destroying—the converters. Each can only disassemble about a millionth of a gram before it works itself to pieces.

Ultimately, the stage-two factories' environment—the bloodstream itself—has degraded so much that it can't support the manufacture of any more converters.

And once the blood stops flowing, of course, the converters are no longer carried into the bones, and they simply wait for a few minutes before shutting down forever.

• • •

The first reports were surprising only because poisoning is such a rare form of assassination these days. Bombs and sniper fire are the preferred methods, even when the attackers don't care about getting away. Our analysts expected the palace's security staff to uncover the plot via the usual methods, employed with gross or subtle brutality on the kitchen help. Likewise we anticipated his recovery, once the substance was identified and countermeasures taken, especially once he arrived in a black-budget clinic up here.

But then he died after all. I saw the photos, his proudly bemedaled hospital gown tangled in the flaccid puddle of flesh that his corpse had become. I also was briefed on the nature of the microbes found in the remains: the billions of uncomplicated machines, etching at the internal structure of every bone almost atom by atom until what remained collapsed of its own weight, their genesis clear in principle but mysterious in specifics. I asked about isolating possible carriers; the specialists laughed. One told me, "We've narrowed it down to something he must have touched, swallowed, or inhaled." An airborne vector, in fact, is the favored guess. They are all certain, however, that this was keyed only to him. "Otherwise, everybody from Medellin to the Yucatan would be melting as we speak." I remember the sweat dripping from his terrified face to the conference table, his teeth working at his fingers.

When I wondered at their lack of concern over the method's novelty, the smiles broadened. A physician replied, "What we've learned from this so far has already saved years of work for an entire—" She stopped herself from telling me something I might not be cleared to know. "Anyway, years of work."

All the regional hands are visibly glad he's gone. Maybe our organization has changed, or maybe it's just that he was an embarrassment, a horror-movie clown invoked near the beginning of every Senate appropriations debate.

I fly down and advise his lieutenant to release the servants, telling him that we believe the perpetrator to be long gone and untraceable. (We've made no progress on the search, in fact; I'm pretty sure we won't, either, as long as I keep my own counsel.) The man is sweating with fear, certain his master's death is our doing. I deny it, but he doesn't believe me; I am content, for once, to let one of these people think us all-powerful.

The next day, our ambassador appears before their National Assembly. His speech guardedly, codedly, but unmistakably supports the reform parties in the upcoming elections.

I watch him talk and remember once more her hand, trembling as she swept the nail-bitings into a used water glass, and her eyes, jerking instantly away when she caught me looking at her. I can't know for sure whether I saw fear in her face after that or whether I just remember it that way. I wonder if she knows my name, or if that even matters compared to everything she must know about me and everyone else who sat at that table. I wonder if it will be she who cleans up the leavings from our first meeting with the next regime.

I wonder if I'll be able to find out, since I don't plan to be in the room.

## About the Author

*Angus MacDonald was born on Janis Joplin's sixteenth birthday and Edgar Allan Poe's 150th. He lives in northern California with his wife and two cats, Toonces and Björk. Although he has never been to Scotland, he has heard many imitations of Scottish accents over the years. His other published fiction is reprinted in "Straight Outta Concord" at* <www.well.com/user/angus>.

## About the Illustrator

*Anastasia Vasilakis has used her abilities in paint, photography, and video in promotions for Showtime, ESPN, Sundance, Oxygen, Sony, Polygram, Visa, Reebok, Levi Strauss,* The New York Times Magazine, Sports Illustrated, *and more. Awards include the Society of Publication Designers, Art Directors Club, and* Print *Design Annual. She lives and works in New York City. Her work can be viewed at* <www.photonica.com> *and* <www.artarea.com>.

*Every situation contains an opportunity. A person just has to know where to look.*

# MULTUM IN PARVO

BY MICHAEL KANDEL

ILLUSTRATION BY GREG TUCKER

1

HE PUSHED HIS EARPLUGS IN EVEN TIGHTER AND hummed, to drown out the voices, but he could still hear the two women. Concentrate, concentrate, he said to himself, clenching his teeth. It was always difficult to shut out Mrs. Ivich when she got started about the clock with Mrs. Garrison.

"The clock is my father's," Mrs. Ivich said. Spence could have said it for her, word for word, he had heard it so many times. "It has sentimental value."

"Rummage, rummage," sang Mrs. Garrison in that irritating singsong she used when she got angry. As if she were not a great-grandmother with blue-gray hair but a child on a playground taunting another child.

Spence, in his narrow closet, bent over the parchment and tried to resume. It was similarity bifurcation, something he had never quite gotten the hang of but had resolved to get the hang of no matter how long it took. You needed to bifurcate similarity before you could sort upper functional coincidence aggregation attributes in loose allomorph continguity resonance. He had fudged long enough; there was no reason not to get this right. "The foundation," as his old mentor was fond of saying. "You must build from the foundation, stone by stone by stone."

"I am not parting with it," said Mrs. Ivich, "so kindly stop hounding me."

"I'm the only one telling this to your face, but believe me, Bernice, everyone here thinks the same," said Mrs. Garrison. "We can't be selfish. There's so little space. You know that."

"The clock is not that big."

"It's enormous."

Spence hummed higher and tried once more to focus on the parchment and the point of his silver stylus. Become oblivious, he told himself. Wasn't turning a deaf ear a mental discipline like any other? He would work at it.

But their voices were so shrill and piercing, like off-key flutes. Didn't those two stupid old biddies have anything else to do but sit and argue all day?

He was instantly ashamed for the disrespectful thought. This elbow-to-elbow living brought out the worst in a person.

With a sigh, Spence gripped his stylus in his right hand and his calipers in his left and tried with all his might to concentrate. He circumscribed and cross-summed, following the logic path of nonsubject tertiary similitude, but Mrs. Ivich said to Mrs. Garrison in a querulous half-shriek:

"What about your shawl? That takes up room."

"I can always fold it and put it away."

"Even when it is folded, it takes up room. It is bulky."

"Because it's pure wool. Pure from Scotland. Impossible to get nowadays. It's valuable."

"So, my clock is valuable too."

"We don't need your clock to tell the time, Bernice," Mrs. Garrison said, exasperated. "The goddamn television tells us the time."

Spence pushed the earplugs in until his ears hurt, and hummed louder. Grinding his teeth, he summoned all his powers of focus. The problem was, *regressus ad malibus,* that to focus on focusing, to some degree you had to be focused to begin with.

Finally, finally, he was back in the symboled statement sequence, had reentered the inexhaustibly fascinating hall of parabolic paratactic patterns. It was a narrative that always surprised with its shuttling weave of meanings and undermeanings, invariably leading you, like a friendly maze, to places you never visited before—wonderful places—when Harriet rapped on the closet door.

"Spence," she called. "Stop that awful noise. Someone would think you're drunk or insane. And come out, I have something to tell you."

The rap, its imbalanced rhythm, its sharpness at the beginning, said how irritated she was. But Harriet had been irritated for years.

"In a minute," he said, removing the plugs from his ears and putting away the parchment and limning devices with a sigh. No studying today.

"We need a chop," she said when he emerged from the closet.

"A meat chop?" he asked. They were having company again. He didn't understand it. With people underfoot and in your hair, who wanted more people? Who wanted to entertain? Harriet had invited the Gillmans again, he knew, because Mr. Gillman had such a perfect mustache and his son was in management in the eau de cologne business.

"Of course a meat chop," Harriet said, the corners of her mouth gummy with spittle. She always developed pastemouth

when she was irritated. "I can't serve the Gillmans a vegetable cutlet. We'd never see them again."

"Hurray, a chop," said Barnaby.

"Shut up," grumbled Barnaby's daughter-in-law, Cathy or Lisa, Spence kept forgetting which. The other daughter-in-law, Lisa or Cathy, had died in the November lottery shootout on 46th Street about ten or twenty years ago, with her husband, although she had been a spectator, not a participant. Both daughters-in-law had harelips. Maybe that was why he confused them. "You're not getting any, anyway."

"Try Abel's," suggested Ralph.

"Nah," said Jack and Linda in unison, "they never have anything at Abel's."

"They never have anything anywhere," said someone else, one of the Courts or McCourts, and a lot of people laughed at that, because it was so true.

"Go to Best Price," suggested Emma.

Spence went to get his hat and coat while Harriet scolded. "You wouldn't have to go out at all," she said, "if you weren't so stubborn. I know I'm wasting my breath, you aggravating man. You could conjure up a chop in two seconds if you wanted, don't tell me you couldn't. Frankie says the same thing. Your problem, Spence, is that you're too proud. I don't understand it. It's not like it would cost you anything to pull a lousy meat chop out of the air for me. If you loved me, we'd have chops all the time, good thick ones, and it wouldn't cost us a cent."

Her voice, with the unrelenting rhythm of a sewing machine, began to merge with the other voices. Everyone talked at once and louder, the way they did when the level of energy grew in the apartment between five and six, the hour before suppertime, because that was when the hunger made itself felt the most.

"Excuse me," Spence said to Mrs. Sawyer, who was in his way with her abbreviated wheelchair. "Excuse me," he said to Billy, who could use a bath.

"Why doesn't David come anymore?" Mrs. Sawyer asked. Her mind was going. It had been going for some time.

David didn't have anything to do with the Kehrwalds now that he was rich and living in a detached house in the Carolinas. David hadn't visited in fifty years, but Harriet still simmered at the snub. She and David had once been so chummy. Harriet liked to get chummy with people on the way up. It was unfortunate that Mrs. Sawyer had mentioned David's name.

"David," Harriet said, showing her teeth, which were in need of whitening, "doesn't associate with losers. He's afraid losing will rub off on him."

As Spence reached out and touched the doorknob, the phone rang. Many voices called for it, but he knew it was for him, from Frankie: The pitch of the ring was unmistakably Frankie's. The ring said business, a repair.

"Spence, it's for you," called Cecil, holding up the receiver and waving it.

"Excuse me," said Spence, stepping over the twins. "Excuse me," he said, stepping around Barbara Maxwell née Bollinger (how did she stay so plump on a diet of seaweed biscuits?) and around her gaunt friends Bonnie and Clarissa. "Excuse me," he said to Billy, who was in his way again. And finally into the phone: "Yes, Frankie?"

"Another wall unit's down in the Stockton area," said Frankie Peñalba. "Get over there right away and fix it, will you? The owner is Commissioner Baker's mother."

Spence sighed, took out a pencil, and jotted down the address. The wall units in the Stockton area were constantly on the fritz. That's what came of using cheap materials. He had warned Frankie. And that Lewis character, the shady contractor from Sicily, disappearing the moment he was paid.

"Don't take too long," said Harriet as Spence again made for the door, saying "Excuse me" left and right. "Remember, tonight Coreen's on the Fred Day Show, so I don't want to start dinner late. The Gillmans will be here at six-thirty, and they come sharp."

Spence nodded, leaving. He always had to hurry, even though he hated hurrying. When you did that, there was no time to think. For example, he wanted to think about the memory that came to him in the closet, of the mentor and building from the foundation, stone by stone by stone.

What did that memory mean? There had been no mentor in Spence's life.

And yet, in his closet, there had been an image, or at least the ghost of an image: a man with tired eyes, jowly cheeks, and a slight stoop. What did it mean, to remember a person with jowls who never existed?

The bare space on the wall over Spence's makeshift foldup closet desk—that was another example. His eyes sometimes wandered to it, as if expecting to see—what? A picture of some kind? A certificate? A diploma? But there was nothing there, not even a rectangle of faintly different hue to indicate that once upon a time something had been there.

Shaking his head, Spence hurried down the steps, put on his gloves, and took the slide pole instead of waiting for the elevator. He'd have to sit with the Gillmans tonight, sip watery tea, and watch Coreen on the Fred Day Show. He groaned subaudibly. He couldn't stand watery tea and couldn't stand tap dancing. Making sewing-machine rhythms with your shoes and smiling as if you were doing something terribly clever.

HE TOOK the el, which was as packed as ever. People squirmed on all sides, using their elbows, knees, and rears to get into position by the door so that they could detrain at the next stop or the stop after. If you didn't plan ahead like that, if you let yourself be boxed and squashed into some corner too far from the door, you could easily end up in another district, and then it would be hours before you got where you were going, since the lines only grew longer as evening approached and more people left work. This was true at every platform in the city and in every direction, because of all the work shifts. Too many people, Spence thought, and by looking at their faces you could see that everyone around him thought the same.

The riders were talking. A friend found carrots at this great new place yesterday. Someone had to wait three hours at the medical store the day before. Mrs. Stevens was killed in the block war Monday a week ago. The usual chitchat.

Spence was rammed by a short Asian lady carrying a stuffed gray duffel bag that smelled of chicken. It wasn't real chicken, of course; one of those artificial scents. The woman had such a low

center of gravity, she was like a bowling ball and he was like a pin. To keep from falling, he threw out a hand, and by accident it landed on another woman's bosom. "Excuse me," he murmured. The woman with the bosom pretended not to notice. When you were stuffed into an el car like sardines, you pretended not to notice all kinds of things. A man near him had stale breath that reminded Spence of Harriet.

How long had he and Harriet been married? It seemed a century. It might well have been a century. He tried to remember what his last anniversary present to her had been. Crystal? Lace? Why was his memory so poor? It wasn't like him to have a poor memory. Or was it? His mouth watered for sardines, which hadn't been in the stores for several years.

TWO ORBS, ONE BRIGHT BLUE AND ONE BRIGHT RED, ASCENDED SLOWLY OVER THE CROWD. THEY REMINDED SPENCE OF SOMETHING, BUT HE COULDN'T PUT HIS FINGER ON WHAT.

The train passed a cleanup: firefighters hosing down the black skeleton of a building that smoked slightly. A police tank sat motionless at a distance behind the firefighters, giving them protection because of all the attacks lately on people in uniform. A lot of gangs were now going for the brightly colored, badged caps. For the jackets with epaulets. Uniforms had come into fashion after the movie *Scorcher 4*. Often the firefighters or militia members you saw on the street were actually gang members.

Saying "Excuse me" to six people, Spence squeezed himself out the door at the next stop, his, the Stockton complex. Mrs. Baker lived in one of the old core buildings. She probably had a bit of money. Many of Frankie's customers did, though not all. Peñalba virtual wall art was something of a luxury, several grades above what people could buy at Wall Mart.

The air was so sour, it stung his nostrils and sent pains through his chest. Harriet always told him to take his analgesic inhaler, but the inhaler needed a refill and he didn't have time to wait at the medical store. Consulting the paper with the address to check the number, he took the ramp to the north-central quad and switched ramps to Building A5, in the process knocking over a drool-faced toddler who held a bunch of balloons. "Sorry," Spence muttered to the mother, but the mother was too tired to care. The toddler screamed, not because it had fallen to the pavement but because it had lost its grip on the balloon strings. Two orbs, one bright blue and one bright red, ascended slowly over the crowd. They reminded Spence of something, but he couldn't put his finger on what.

Mrs. Baker was glad to see him. She shooed back the other people in her apartment, led him to a small dinette, and offered him tea. Spence declined politely. "I just had some tea," he said.

"Oh, but it's the best, Harrison's," said Mrs. Baker. The tea in fact smelled like tea and was fairly brown.

"I'm in a hurry," Spence explained. "I have to get back to see a relative on TV tonight."

"Oh, a relative on TV, you're so lucky!"

"My son was on TV," said a dour man.

"Charlie, that was the death-row show," his wife said, even dourer than he. "It's nothing to be proud of."

A row of children giggled.

Spence was shown the faulty wall. He took off his hat and coat and got to work, while Mrs. Baker hovered and talked.

"It stopped showing the Sahara," she said. "I love those big expanses, the dunes, the wide sky. So realistic. And then it stopped showing seascapes, which I love too, though the water sometimes makes me a little queasy, if the ocean gets choppy and I watch too hard."

Spence nodded, listening with only half an ear as he adjusted the molecular mix and reprimed the semipolar potentiality field gradient distribution synthesizers. He used tools from his breast pocket not because he needed them but because tools gave people confidence and also kept them from asking questions.

"It's so cramped in here," Mrs. Baker went on. "It's like living in a morgue, each family in its own drawer. Shelves and shelves of drawers, up and down and sideways. At night sometimes I feel the weight of all the drawers stuffed with people around me. I feel they're closing in and I can hardly breathe, like I'm buried alive or walled up in a prison without windows. But even a prison cell would be better than this if it had bars, if you could catch a glimpse of the sky, even a little square of dirty sky."

Spence nodded and called up the Sahara on Mrs. Baker's wall.

Seeing the sand and sun and clouds, she sighed with relief and went on about how wonderful it was, such a comfort, to behold scenes straight from unspoiled nature on your wall. It made life bearable. She wished she could afford the scenes that came with smells, too.

Some of the people in the apartment were pressing around Spence as he finished up and then reached for his hat and coat. He knew what was coming.

"You didn't need those tools, did you?" asked a thin young man with bleached hair. It was more a statement than a question.

"You're one of those scholars," said a middle-aged woman who had a long scar, probably tribal, at an angle across her forehead.

"He's a scholar."

"Mister, while you're here, could you make my old lamp new?"

"My poor Harry's got a bad heart. Would it be possible, could you . . . ?"

"I'd like to visit my sister in Detroit. I haven't seen her in—"

"Who's going to win the Derby this year? Come on, give me a break. I promise I won't tell anyone else."

Spence did what he usually did in such situations: distributed business cards that said PEÑALBA V-R WALLS. "Talk to Frankie," he told them. He handed Mrs. Baker a repair bill and beat a quick retreat while the people all looked at the cards in their hands.

This sort of thing always embarrassed him. Next time, he thought—red in the face, sweating, hurrying—I have to make what I do with the tools more convincing. People aren't stupid.

IT WAS so crowded at Best Price that for a moment he despaired even of getting past the front door. Because someone had been trampled, room had had to be made for the miniamb or the hearse, whichever it was. That was the reason for the backup this time. It was always something.

The voices were a roar around him. The word "cabbage" was repeated often. There was a sale on cabbage. A man behind Spence coughed with a heaving noise. Two couples were arguing vehemently about the symptoms of diphtheria. I'll never get a chop here, Spence thought.

But he had to try, because the black-market greenmarket was so expensive. Harriet would give him a long lecture about economizing if he didn't try Best Price first. Even though *she* went to the expense of serving wine to her dinner guests, and had dinner guests practically every week. Entertaining seemed a necessity for Harriet. Spence supposed it was a way of demonstrating to the world that the Kehrwalds weren't poor like everyone else.

"I heard there were carrots," said a man.

"Don't believe everything you hear," sneered a woman.

"I heard there were carrots," repeated the man.

"It's corruption," said another man, toothless, indignant. "It's the Republicans."

"Macaroni's up this week," said a woman with a voice that made Spence shudder. He could tell from the voice—reedy, and with no overtones in the upper register—that she had inoperable ovarian cancer. Sometimes he wished he could shut off his ears. "Five dollars a pound," said the woman, unaware of her doom. "It's shameful."

Inside, the manager was gesticulating his honesty as the customers around him hurled insults. "I swear," he said. "I swear."

Someone at the far end of the store fired a gun. That made Spence's ears buzz. Everyone crouched immediately, heads down; these were seasoned shoppers. You crouched; you never got on the floor in a public place.

Spence was able to squeeze into the meat section aisle because two women in front of him stopped at the stress station to have their blood pressure taken and receive a few minutes of canned counseling, courtesy of Libby's.

Just as he feared, there were no chops in the chop bin, only reconstituted bologna, which was nine-tenths artificial and tasted it. "Damn," he said.

A woman behind him elbowed him out of the way. She was hard-jawed, a no-nonsense shopper. She put two bolognas in her basket.

It took him almost half an hour to work his way out of the store. So noisy, he thought. Why did everyone have to talk so loud? If they all lowered their voices a little, they could hear one another just as well, or better. People didn't live logically.

He took an express ramp to the grocery on 132nd off the Upper Alameda. Not everyone knew about it. You had to have a Tobagan connection (the proprietor, Mr. Fritz, was an exiled revolutionary from Tobago, just like the Peñalbas). Lately, the greenmarket was disguised as an investment brokerage; the monitors in front with stock-market figures were bogus, showing last week's or last month's figures.

"Interested in opening an IRA?" asked the salesperson smoothly. It was one of those new people with no gender. Not such a bad idea, Spence thought, considering the overpopulation.

"No, thanks," he said.

"Perhaps I could interest you in a mutual fund. Pembleton has a brand-new one, in modified utilities. They do interesting things with straddle options." The salesperson didn't seem at all interested.

"Actually, I was wondering if you had a chop."

"Ah, a chop," said the salesperson. "You'll excuse me a moment, please." And he, she, it went to get Mr. Fritz.

The proprietor came out, with his usual scowl, red face, and uncombed hair. He recognized Spence. "Ah, Louis," he said, smiling and holding out a big butcher's hand.

"Spence," Spence corrected him as always, shaking the hand.

"Spence," said Mr. Fritz, nodding. "You know Frankie."

"That's right."

"So what can I do for you, Mr. Spence?"

"Kehrwald, Mr. Fritz, my last name is Kehrwald. But you can call me Spence."

WHY DID EVERYONE HAVE TO TALK SO LOUD? IF THEY ALL LOWERED THEIR VOICES A LITTLE, THEY COULD HEAR ONE ANOTHER JUST AS WELL, BETTER. PEOPLE DIDN'T LIVE LOGICALLY.

"An alias, eh?" said Mr. Fritz with a new gleam of admiration. "You're wanted by the police? I knew I liked you." He rubbed the stubble on his red chin.

Spence found himself wondering if the blood of the meat in the back room had worked its way into the man's skin over the years, like grapes or a dye. Mr. Fritz's cheeks were permanently flushed, bluish like bruises, and his lips were liver lips. Why was it that Harriet no longer asked Spence to buy liver? Probably the death of their cat, who loved liver.

Curiously, very curiously, Spence couldn't recall the cat's name. Twinkle? Tinkle?

A cat's name wasn't the kind of thing a person forgot. Even people who had had dozens of cats. Even people who suffered brain damage. They'd forget their children's names sooner.

"I'd like a chop," said Spence.

Mr. Fritz grumbled and shifted his weight, as if he needed time to think about this.

"Do you have one?" Spence asked, feeling hollow in his stomach. With no chop on the table, the Gillmans might not come again. Then Harriet would get into one of her foul moods . . .

"Well," said Mr. Fritz, looking both ways and gesturing for Spence to lean over. He spoke in a low, hoarse voice, as if the topic of discussion were heroin. "Seeing as you're Frankie's brother . . ."

"A friend," Spence corrected. "Actually, not really a friend, either. I just work for him."

Mr. Fritz waved a hand: brother, friend, employee. "We have

something, it so happens. And as a special favor to you . . ." He paused, debating whether he was prepared to grant such a favor. "I'll do it for Free Tobago," he said at last, his voice strengthening. "For Frankie, General Herman y Tricola, and Free Tobago."

"Thank you," said Spence.

Mr. Fritz led Spence to the back room, drawing aside a dirty gray curtain. Flies buzzed. The stink was overwhelming. On the butcher's block lay something.

"That's the chop?" asked Spence.

Mr. Fritz smiled grimly, tore off a portion of brown wrapping paper, and started to wrap the meat.

"It's green," said Spence.

"We don't use chemicals here, we're organic," said the butcher.

"But so green."

"Green, green. What did you expect? This is a greenmarket. Ha ha." There was malice in the laugh. There were bared teeth. Spence decided to drop it.

The cash register bells jangled. Two numbers rose.

"Sixty dollars?" gasped Spence.

"For you, half price," said Mr. Fritz. "Since you're family." And then he said something in Tobagan. Spence didn't know any of the words, but the swelling lilt of patriotism in them was unmistakable.

"All right," he said, taking out his wallet. "But wrap it in plastic, please. I have to go back on the train with it."

"So what's the problem?" Mr. Fritz winked. "With this chop, they give you room on the train."

The man had a point.

That evening, while the Kehrwalds, Gillmans, and others were watching Coreen on the TV, Spence thought about the holes in his memory, about the bare space on the closet wall over his foldup desk, about the mentor he never had even though that mentor possessed jowls and, in Spence's head, a familiar voice.

When a thing has no explanation—perhaps Spence was told this once, in a classroom that smelled of mildew and chalk—consider the impossible.

So, as Coreen did her silly tap dance and sang in a sour off-key voice about puppy love, Spence started considering the impossible. It was not easy; it was like groping in a place you've never been, in the dark. After a while, he stumbled on something, a suspicion that turned him to ice.

There was applause. The whole apartment was clapping. Coreen, on the screen, bowed and waved and blew kisses, as if she could hear the television audience all over the city. Some sets were two-way, but not this one; the Kehrwalds couldn't afford a two-way TV.

Spence would get up early tomorrow, before the sun, when everyone was snoring, and he would get out the leather book, roll up his sleeves, and do some scholarly investigating.

HE EASED himself out of bed. The Bixbys and Mrs. Ivich were all sawing away. Harriet was sawing away. Jerome had on his reading light in the corner, between Mr. Mack and Bart, and was quietly doing a crossword puzzle. Jerome never slept. If you got up to go to the bathroom at three in the morning, Jerome was doing his crossword puzzle. Spence wondered how the man made it through the day on no sleep.

Someone was in the bathroom now, flushing. Spence tiptoed to his closet and closed the door behind him carefully, so the click wouldn't be too loud, since the Carey children and the Youhas children were asleep in their sleeping bags nearby and they tended to giggle mindlessly, on and on, when they were awake and in the bags together. He turned on the closet light and began to set up, taking out the leather tome, the parchment, the compass and calipers. He moved slowly, so as not to bang his elbows. He had trouble finding his goldfish bowl. He hadn't used the bowl in many years and wasn't sure where he'd put it. "I should be more organized," he told himself, though it wasn't easy to be organized in so poorly planned a world.

The bowl was under Mr. Wexler's two tennis trophies and a few decades' worth of yellow, brittle tax returns. Spence got it out and blew off the dust. The goldfish inside the bowl seemed all right. It still turned in lazy, counterclockwise circles, like a tired mechanism. The thing was a mechanism, of course, made of plastic and containing chips instead of gills. Amazing how those polonium batteries held up.

No one except a television executive or a senator gangster could afford a real goldfish these days, pet food being so expensive. Spence remembered the Piaseckis, who had been put in jail because, with the awful food shortage and rationing—when was it? in '53? '54?—they finally found themselves in the position of having to choose between their two-year-old daughter, May, and their wirehaired terrier, Ralph. Ralph, who had been in the family twice as long, won. It was in all the papers: Mother and Father Feed Own Child to Dog. Spence remembered Mrs. Piasecki saying bitterly, as the police took her by the arm, "Prison won't be worse than this." Meaning worse than their apartment. She was probably right about that. Mr. Piasecki, Spence remembered, was a meek soul who said little and did remarkably intricate origami with wastebasket scraps.

The toilet flushed again. Someone in the hall cleared his throat, and a dozen people murmured. Spence peered out and saw that a line had formed at the bathroom door. From the pangs in his own stomach and bowels, he understood: It was the chop. But the chop always did that, didn't it? The chop bacteria. They really shouldn't buy meat anymore; it wasn't safe. It certainly wasn't worth all this discomfort. But Harriet was so vain. Meat, however green and gone, for her was a status symbol. What flashy automobiles had been, ages ago, in a former world.

Automobiles? Former world? A memory came, of shiny chrome, shark-mouth grilles, silver hood ornaments in the shape of planes and mermaids, and high, elaborate tail fins with vertical rows of rich red round lights. When had that been?

Never. It was another image from a past that had never been. But this was the reason he was here at the crack of dawn: to test the integrity of the line, to see if existential tampering had taken place.

He took a breath. He framed out the preliminary fields. He ordered the reciprocal infraconsubstantial bond value pairs. He sectored and cross-sectored to clear the deck of divisible gradient autonomies, anomalies, and metonymies, *in limine* and *mole ruit sua,* and he refracted the abscissa means of causality limit

agreement *ad unguem* and *haec omnibus pervulgata sunt.* The fishbowl began to fill with blurry mist.

As the plastic goldfish patiently turned through the mist, Spence looked and saw a scene: a hill that was half green with vegetation and half gray with stone. There were big gray stone buildings with spires, and in the distance was a body of water—more than a lake, less than a sea.

Another flush came from the bathroom, and someone with a cramp muttered, "Hurry up, damn it!" Spence sympathized with the people waiting. When you had to go, you had to go.

He took a closer look at the buildings in the fishbowl. They were not churches, being too extensive and somehow too mundane for all their moss and dignity. This was a university, a well-established, Ivy League university. The words "New Haven" came to him, and with them the realization that there had been more, much more, than an existential tampering; there had been a major, massive restructuring of the very flux and weave and substance of is.

Who had dared to do such a thing? The fishbowl clouded up again, and the mist wavered, seemed undecided whether or not to reveal to Spence the full enormity of the crime.

Spence opened the fingers of his right hand and motioned slowly over the bowl, keeping time with the goldfish. He wanted to see his past, the past before the past was rewritten; that would serve as a yardstick. The first thing he beheld was a framed certificate on a wall. The certificate was a college diploma, was a Ph.D., was in fact his own Ph.D., saying Spencer Remus Kehrwald, and immediately he remembered the Academy and that it was famous and situated in Baltimore—to the north, on Charles Street—and that Baltimore was once a separate city, not one of a thousand sections of a megalometropolis that stretched from perpetual winter to perpetual summer and that along the east-west axis filled up every acre of land between two oceans. Spence remembered, in addition, that the waters of those oceans were once sometimes clean enough for people to view with pleasure and actually bathe in.

There used to be, in that Baltimore academy, a mentor, his mentor, Dr. Oles. Dr. Oles had been Spence's guide into the realm of the higher mind.

There used to be parks in that lost Baltimore, open spaces. Stadiums, zoos, opera houses, promenades. He saw a panorama as if from a copter. He saw rows of white marble steps along the city streets, and now remembered, looking at the steps and seeing people on them, that once human beings had short life spans, very short, less even than a hundred years, no time really to learn anything about anything before the lid of the coffin descended on them like the board of a closing book.

On the other hand, there had been an abundance of food, at least in certain communities, in certain parts of the globe. And ample medical facilities. Doctors' offices, hospitals, centers devoted to specific organs: the eye, the heart, the kidney, and so on.

Spence took his dowsing stylus and, iterating nonalliterative phase part parameters while alliterating noniterative part phase parameters *nos hopus vaelor,* honed in on the author of the change. The scene shifted back to New Haven, zooming in on a building at the far end of a long lawn. Spence-as-spectator entered an arched window and proceeded nonphysically down a brown hall and into a brown laboratory.

There was a short, stout man with long gray hair swept back. The man wore a pinkie ring and had a gold tooth. Spence took an instant dislike to this individual, whose name was Achille Chauveau. He was a visiting professor from Lyons.

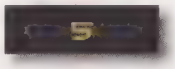
What was this Achille Chauveau character doing at Yale and at this lab bench? He had several parchments opened before him and was, it seemed, fractionating surds, the flocculent, bilateral, unexpunged variety. Spence couldn't help but be impressed. Here was a high-power theoretician indeed. Except that the theoretician was not doing theory, he was doing something effective and effectual. What exactly? Spence looked closer and saw diagrams that were molecular-biological, lenses that were ethical-hypotarsical, parallelisms that were iridical and arch-horological, *monte pergolum est captinus borgii.* He gasped. Achille Chauveau was doing away, completely away, with cancer.

Spence understood everything.

Lips tight, eyes hard, he turned off the mist and went and packed his suitcase. He took all his research paraphernalia, even the copper peduncle with the little porcelain dish. He was so focused on his grim mission and so discombobulated by the wanton act of idealism he had just witnessed—focused and discombobulated at the same time—that he completely forgot to open the door when he left the apartment.

Bobby Jenks and Philip Berman, looking up from their pillows and seeing Mr. Kehrwald pass hurriedly into the door and through the door until he was gone—hat, coat, suitcase, and all—blinked and assumed, naturally, that they were not awake, as they had thought, but in fact still asleep. Philip turned over and was snoring in a minute, but Bobby spent a good half hour trying to figure out what this dream signified. Two years ago he had paid fifteen dollars and taken a correspondence course in the language of dreams. As much as he pondered, he got nowhere on this Mr.-Kehrwald-through-the-door dream. He shrugged, yawned, pulled up his covers, passed wind twice, and fell asleep.

It wasn't five yet. The light outside was a dirty gray, hardly deserving the name of light. The toilet flushed.



PROFESSOR CHAUVEAU had a large office, sharing it with only three colleagues, and they were sitting off in a corner, away from the window, and, by the look of them, either comatose or catatonic. The three unblinking, straight-backed educators were part of their chairs.

"Can I help you?" Chauveau asked with a thick French accent, looking up. But even as he looked up, his mind was on something else, something more important. There was a powerful aura of importance and abstraction about the man.

Spence felt foolish standing at the door, holding his battered old portmanteau. He had come to talk first—though he saw now, sizing up his opponent, that talk would be useless. Still, he had to try. You had to reason with before you resorted to fighting with. Force should be used only when there was no other possibility.

"I'm Spencer Kehrwald," said Spence.

Chauveau looked at Spence but didn't really see him. The visiting professor from Lyons was shorter and squatter even than the image of him in the fishbowl. He had coarse, peasant fea-

tures—meaty hands, stubby fingers, a bulldog mouth, discolored bags under his eyes, and a egg-sized wen on his forehead. Yet his bearing said Sovereign. Even from below, he looked down on Spence.

"Achille Chauveau," he said.

"I know," said Spence.

Chauveau inclined his head slightly, as if to say: Well, of course you do. Who does not know Achille Chauveau? But state your business and be on your way. I have much work to do, as you can see.

"You are the maker of this world," said Spence, clearing his throat.

Chauveau nodded again, slightly. The nod now indicated a tolerant ennui mixed with resigned impatience: Of course, *mon ami.* You are not telling me anything I do not know. Come, let us get to the point.

"You are the maker of this overpopulation," Spence continued, embarrassed because of Chauveau's composure. "You removed fatal diseases and stopped the aging process."

"Yes, yes," said the professor, polite as an emperor is polite. "This is obvious."

"As a consequence," said Spence, and despite himself his voice seemed to be taking on a nasal whine, as if he were a child protesting a decision made by many adults, "there's no room and not enough food."

"There is more to the human condition," said Chauveau. "Much more, *mon vieux,* than what is ingested into the corporeal organism."

This was spoken with the gesture of a conductor leading an orchestra through a masterpiece. Spence realized that students idolized Chauveau.

The man was as centered and immovable and weighty as a mountain. It was not self-importance, either, that made him thus; it was the dedication to noble truth.

"There are billions upon billions of people," said Spence, "leading wretched lives."

"When one builds," said Chauveau slowly, closing his eyes, seeking the right words and having no trouble finding them, "it inevitably happens that there are, by the very nature of the raw material that one is obliged to use—an unprocessed, recalcitrant material—wrinkles that develop in the fabric. Discontinuities, lumps, asymmetries. Witness the work of the First Builder Himself. But what are we to do? Fold our hands because uniformity and perfection cannot be realized? No, *mon cher.* We are problem solvers, we are the users of tools and the devisers of devices. When there are flaws, we fix them; when there are wrinkles, then behold, *voilà,* we use an iron to iron them out." Chauveau smiled, seeing a lovely vision closed to others.

"There is constant ailment," said Spence. "There is constant war and violence."

"The pedestrian mind," said Chauveau, still smiling, but his smile now was hard, "sees only the ground before it as it places its careful feet one step at a time. A safe strategy, *sans doubte,* but alas, you can make no leap that way, my friend, no *saute.* No, it is impossible that way to make a *saute* across the ravine that interposes itself between you and the goal. I believe, instead, that it is our nature, our human nature, to rise above the quotidian soil, to lift our heads to the stars, to ignore the repetitive and unimaginative dictate of gravity."

*Ad astra,* thought Spence, and understood, with a shiver, that he was dealing with the cruelest kind of man, a prophet.

Chauveau dismissed him. Spence found himself outside, on the street. He was no longer in New Haven. It was too hot for New Haven, and the altitude was wrong. He looked up at a street sign over a sea of heads and saw, from the letters, that he was in Manchuria. The sky was overcast and the air sour with industrial waste. Three el trains rattled past in three different directions. There was the steady chatter of gunfire in the distance. Manchuria, New Haven, it made no difference. Every spot on the globe now was the same. Spence gripped his portmanteau and set his jaw.

FAMISHED FROM the trip back to New Haven, he had the good luck to find a relatively roomy restaurant. There was only a ten-minute wait for a seat, and when you got a seat, there weren't people leaning over your plate, muttering impatiently.

The restaurant was a modest pizza establishment; it had no curtains or tablecloths. When his slice came, it was cold and soggy—tomato sauce on a crust, with only a fleck or two of ersatz cheese—but not bad. He chewed slowly, appreciating the pizza taste. The water here was good also: not too rusty or acrid. It came with a little white tablet you dropped in to kill the foraminifera. Water with a tablet was called a Tab. Tab had once meant something different, a different kind of beverage. A lot of memories were coming to him now, from the old world, the one before Chauveau's.

THE MAN WAS AS CENTERED AND IMMOVABLE AND WEIGHTY AS A MOUNTAIN. IT WAS NOT SELF-IMPORTANCE, EITHER, THAT MADE HIM THUS; IT WAS THE DEDICATION TO NOBLE TRUTH.

Chewing, Spence cogitated.

Changing the world back would require not only overcoming but also somehow neutralizing Chauveau, because a continuing tug-of-war between the two scholars was unthinkable, reality being too delicate to survive such stress.

Also, changing the world back would create new problems. New problems always resulted when you touched nature. Granted, the present order wasn't exactly nature. But a restored, pre-Chauveavian order would be even less nature, for the reason that what you had to begin with was always more genuine than what you replaced it with. That was a basic law. The law of patches. A repair, no matter how carefully done, was another step away from the original. Spence thought of an egg, which could not be uncracked when cracked, or uncooked when cooked. That was Professor Girard's analogy.

As Spence chewed his pizza and sipped his Tab, he began to

think of an egg more with his stomach than with his philosophical mind; it had been so long since he had a real breakfast with rich golden yolk running over crispy toast and maybe a piece of savory bacon. He sighed.

"Depressed, are you?" said the young man opposite him at the small, wobbly table. The young man had what looked like a strip of zucchini on his slice of pizza. He evidently came from a well-off family. His breath, underneath the pizza smell, said graduate student, third or fourth year. In the humanities, probably English, judging by his sandy hair.

VOSS GRIMACED, IMPATIENT. "IF YOU'RE OBLIGED TO PLAY MURDERER WITH THESE PEOPLE IN THE PICTURE, THEN MY ADVICE TO YOU IS, TAKE THE LONG VIEW."

"No, not depressed," said Spence with a smile. "I have a problem. A difficult one."

"Tell it to me," offered the graduate student, as serious as all graduate students were. "I've minored in philosophy." He introduced himself—Carter Voss—and they shook hands across the table.

They both took a bite of pizza, each a bite of his own. They chewed, swallowed, and Spence said to Carter Voss: "All right. Maybe you can help me. I have this picture."

"A picture."

"Yes, and it contains people."

"The picture contains people."

"But they are living people."

"Living in what sense?"

"In the real sense. In every sense."

Voss frowned. "Then it's not just a picture you're talking about, Spence."

"Correct. It is, and it isn't."

"I don't see yet what your problem is," said Carter Voss, sipping his Tab.

"I have to change the picture," said Spence, sipping his Tab too. When you sat opposite someone, you tended to do what he did.

"And?"

"Well, the people."

"What about the people?"

"The people in the picture, when it changes, will be changed also, since they are part of the picture."

"They will be changed. That is logical."

"But people can't be changed, Carter. They are not like furniture or clothes. People can only be replaced, by other people."

Voss nodded. "So they will be replaced for your new picture."

"Exactly. But the people of the old picture, what happens to them?"

"They have been replaced, as you just said."

"They have indeed. They are no more. A hundred billion people, maybe two hundred billion, are no more."

The graduate student considered that. He dabbed his mouth with a napkin. He shook his head. "I'm not sure I follow you, Spence."

"Well, if the new picture's not a tremendous improvement over the old," Spence explained, "they will have died in vain, those hundreds of billions. I will have killed them in vain. It's too much responsibility for one man, I think."

Voss looked at Spence for a while, puzzling. "There's a fallacy in this," he said finally, his frown giving way to a condescending smile as he took a bite of his expensive sliver of zucchini. "You aren't killing the people if you change the picture."

"How is that?"

Voss pointed with a confident, graduate-student finger. "Because, you see, when the new picture replaces the old, it will be as if the old picture never was. As if the people in it never were. So they cannot have been killed. Who was there to be killed? There was no one to be killed. I should say, rather: to have been killed. This is really just a matter of semantics, Spence, what verb to use."

"That argument," said Spence, rubbing the inside corners of his eyes wearily, "applies to all people, not only people in pictures, and to every form of killing that was ever committed or contemplated. When people die, it is always as if they never were, afterward. From their point of view."

"This is not killing," said Voss. "I don't know why you persist in calling it killing. They will feel nothing."

"Pain is no criterion, Carter," replied Spence. "If I murder you in your sleep and you feel nothing, I am no less a murderer."

"But you're only changing a picture."

"A picture that has people in it."

"Then don't change the picture. Leave it alone."

"I must change it. I have no choice," said Spence in a low, stricken voice. He actually wrung his hands, under the table.

Voss grimaced, impatient. "If you're obliged to play murderer, Spence, as you put it, with these people in the picture, then my advice to you is: Take the long view. Think instead of the people in the new picture, the ones you'll be creating."

"I won't be creating the new people."

"Then who will?"

Spence sighed and looked down at his empty plate. He was still hungry. The pleasant pizza taste had left his mouth completely. "There is only one creator of people," he said, as if to himself. "And that one is the only one in creation who can take the long view. I'm a mortal, Carter, not a god."

Voss shook his sandy hair with the slow shake of superior understanding. "But we are all gods, at least potentially. To be a human being is to be a god. That's what—"

"That's what Chauveau says."

"You know Chauveau?"

"I spoke with him only a few hours ago."

"He's my dissertation advisor."

"I figured that out."

"Chauveau is a god above gods." The light of worship filled the graduate student's face.

"I know he is. That's why I have this problem."

Voss narrowed his eyes at Spence. "Well," he said, "you had better not cross swords with Chauveau. He is a genius and one of the greatest minds of the millennium."

"Are some minds greater than others?" Spence inquired.

"Of course they are."

The manager came over and pointed at his watch: They had to leave. It was unacceptable for patrons to sit at a restaurant table for more than half an hour, especially over only one slice of pizza.

The night was cold outside. A shriveled lemon peel of moon, rusty brown, hung spiritlessly against a backdrop of mud. There were no stars. Beholding the starless mud of the sky, Spence knew what he had to do, but he didn't know how to do it.

How do you get the better of a genius?

Voss waved good-bye and set off northward, fastening the top button of his shirt against the wind.

Chauveau was probably even a better scholar than Dr. Oles had been. Spence remembered his mentor now, remembered the encounter with Oles in Gary. All that violence. Why did there have to be these crossings of swords?

As he walked, he forced himself to think. He thought, and thought some more, but no ideas came, only the horrible image of a world's population winking out of existence, to be replaced by a new world's population, they too winking out of existence as men from the Academy crossed swords—men who, for all their special scholarly knowledge and training, were no wiser or better than anyone else.

How did you outthink one of the greatest minds of the millennium?

Spence knew that the practical, sensible thing for him to do was go home and forget. Reintegrate himself into the present world.

He couldn't. This insult to the higher balance could not be ignored. It went against everything he held sacred.

He would have to fight Chauveau. It was inevitable.

Looking up at a street lamp, he squinted. The tiny light hurt his eyes. A light bulb was such a simple device. A single, hairlike filament against the universal night.

Spence decided that, in his confrontation with Chauveau, he would be simple, like a light bulb.

"AH," SAID Professor Chauveau when Spence appeared in the doorway. "You persist."

"I must."

Chauveau erased Spence by reducing him to his constituent elements. A puddle of water on the floor, some water hanging in the air as vapor, with a relatively small number of nitrogen atoms borne away by the faint breeze from the open window. Beside the puddle lay a pile of ash, which was black carbon powder, with some traces of iron, calcium, phosphorus, potassium, and a few other impurities mixed in. The breeze began to scatter that as well. A few powdery grains floated on the puddle, making circles. Spencer Kehrwald had been deconstructed.

He pulled himself together and said, "I don't like to interfere, Chauveau, but I cannot allow this. I'm sorry." He placed nonmimetic fifth-order categorical blue pass diapason handcuffs on the French genius, and for the ankles he fashioned and attached a matching set of leg irons. "You must be stopped."

"You set yourself up as law?" mocked Chauveau, and the handcuffs and leg irons fell away with a hollow clink and clunk, as if they were the flimsiest toys. "You reveal yourself as a reactionary. I have no patience with the ilk of you, *non.* Always, always you people are wanting to set the clock back." On the word "clock" he pushed Spence into a scene of childhood, and at the same time he deftly closed and twisted together the ends of the scene, so that Spence found that he was seven years old, in his mother's kitchen, putting a chocolate chip cookie into his mouth—except that because the arrow of time in the kitchen was now circular instead of linear, the cookie kept reappearing in the cookie jar, and Spence's hand automatically kept bringing it to his mouth. It was a fate reminiscent of Tantalus and Sisyphus combined. Spence was trapped forever in a diabolical merry-go-round of unfulfillment. What added to the existential anguish was that the cookie was store-bought and stale to begin with, because Spence's mother had neither the time nor the inclination to bake. "Why should I bake?" his mother always said, raising a sardonic eyebrow. The left eyebrow.

"Everyone who does not agree with you is a reactionary," said Spence, shaking himself out of the eternal loop as a dog shakes itself out of a miserably cold river in late October. "But the world is not so simple."

"That it is not simple, I agree," replied Chauveau, "but the dialectic of change, the dialectic, *mon ami,* is simplicity itself. I push a step forward, you pull a step back. I tug the rope, you tug in exactly the opposite direction. That is simple." With a snap of his fingers he short-circuited every neural connection in Spence's brain.

"You have no right to cross things out because you disagree with them," said Spence, using his autonomous hindbrain as an emergency backup and blinking away the spots before his eyes. He reduced Chauveau to two dimensions and placed him in the center of a thick volume on the economics of eighteenth-century Portugal, like a bookmark.

"In order to build what will be," said Chauveau from inside the book, his voice muffled by pages upon pages of pie charts, bar graphs, and footnotes, "one must first dispense with what is." He extricated himself from that historical study as one extricates oneself from a crowded subway on Friday. He dusted off his collegiate sports jacket with dignity.

"Who are you to decide?" asked Spence, pushing Chauveau's face in, unable to think of what else to do. These confrontations did often degenerate.

"I am Achille Chauveau, that is who I am," said Chauveau, pushing Spence's face in, in turn, and harder. "And you begin to annoy me, *ma foi.*"

"You are but one man," said Spence, not very distinctly, since his mouth was concave for a moment instead of convex. "You take too much upon yourself, to direct the course of the planet's future."

"Someone must do it," replied Chauveau, twisting Spence into a topologically impossible pretzel that Escher would have loved. Spence was not only both inside and outside himself but among himself as well. It was a maddeningly uncomfortable position. "And I am only beginning, my right-wing friend. Next I will give all humanity the power of telepathy, yes, so that people may more easily empathize with their fellow creatures and so avoid the moral error of intolerance. Does not the world's viciousness come from people's inability to see themselves in the other?"

"You have no conscience," murmured Spence as he struggled to straighten himself.

"No conscience? How can you say I have no conscience? I am a

man of the highest principles."

Spence took the negative of Chauveau and brought it into contact with the positive, making for a total nullification of the amazing scholar from Lyons. "That's the whole problem," he said, addressing the emptiness. "Principles are real to you, not people. Ideas, not flesh and blood."

*Ex nihil* and *mihi parvus coelum,* Chauveau snorted, returning like a bull into the ring as the crowd roars for blood. He rapped Spence's knuckles with an elementary school ruler. The fingers on Spence's right hand went clattering across the floor like pieces of hard candy from an overturned jar. Heartsick about his fingers, Spence fumbled ineptly with hasty Scotch tape.

Chauveau, stony-eyed, continued the mutilation of his opponent by separating him so completely that Spence didn't even have teeth to clench. Chauveau collocated his bits with tiddlywinks, cufflinks, and cams, creating such acute identity interference and holistic irrelevance that despite himself Spence began to lose track of what was he and what was not.

Chauveau smeared him across the continua of location, significance, computability, and partiality. Spence had never in his life been so dissociated and disoriented, not even when Harriet, out of the blue, launched into one of her vitriolic tirades.

Chauveau made a bubble of Spence and popped it, made a tree of Spence and chopped it down, made a fire of Spence and doused it with a deafening hiss.

I'm losing, Spence thought bleakly.

He didn't mind losing that much, actually. He had never been the competitive type. But what about those helpless billions upon billions of people? If Chauveau made them telepathic to boot, think of the misery that would result. It was bad enough already,

CHAUVEAU MADE A BUBBLE OF SPENCE AND POPPED IT, MADE A TREE OF SPENCE AND CHOPPED IT DOWN, MADE A FIRE OF SPENCE AND DOUSED IT WITH A DEAFENING HISS.

the way everyone was breathing down everyone else's neck, sticking a nose into everyone else's business. There was no privacy anymore. In Spence's own apartment there was a line to the bathroom now practically around the clock.

"You say you want to change the world. But how can there be change?" Spence managed to ask Chauveau, as Chauveau with great energy dispatched and disposed of him in a hundred different ways at once.

"Come again?" Because Spence's voice was so faint.

"How can there be change? If a state is static to begin with, how can it become dynamic? What does it begin from, in that first moment?"

"Zeno's paradox," sneered the professor . . . but there was a tinge of uncertainty in his sneer.

As they fought—or, rather, as Chauveau continued to mop up the floor, so to speak, with the sad, failing remnants of Spence—the two scholars drifted into a discussion, because it was an interesting question, after all. Chauveau, being the great genius that he was, saw things that Spence couldn't possibly see, so Spence contributed less and less to the discussion and Chauveau more and more, until the discussion gradually became a monologue, Chauveau assuming both sides of it, and then the monologue became a silent monologue, because there was too much to say for it to be said out loud, and before very long the visiting professor from Lyons was rapt with abstraction, absorbed in theory, and totally transfixed with the increasing, mounting, brightening bliss that comes only from the exercise of the higher mental faculties when they meet a worthy challenge.

And what worthier challenge could there be than a paradox?

There had been three motionless figures in Chauveau's office, three professors as if carved from wood. Now there were four. Spence heaved a sigh of relief, put himself in the best semblance of order he could, took a last look at the idealist who was a danger to the world no longer, and walked out.

HE LOVED all the room. There was room wherever you turned, room in every direction. It was like being suddenly and unexpectedly on vacation, in the country, back when there were trees and vistas and open sky. This wasn't the country, of course, it was only an apartment—their old apartment, in fact, the same old apartment—yet it was as fine and splendid as a palace. How clever of him, to think of that one little alteration. Surely this was the maximum effect that could be squeezed from a minimum cause. Spence came close to congratulating himself—but he knew better. Reality always had tricks up its sleeve, particularly when you thought you had finally put it in its place.

Still, their old apartment was a wonderful apartment now, and everyone in it was pleased. The Bakers and the Mulligans were camped at the north end and had put up curtains and dividers. The Caldwells, Piaseckis, and Kahns were setting up house—no, better, separate houses—on the new floor that had been constructed between where the sofa used to be and where the curtain rods used to be before the furniture was scaled to fit the people. So much wonderful room!

The Reinecke kids were playing with their pet pink paramecium, laughing at the way it whipped its long tail as it swam back and forth in its bowl. The creature wasn't very intelligent, having no brain, not even a neuron, but it provided great entertainment. How clever, how fortuitous this turned out to be. Spence rubbed his hands and chuckled; though the downsizing had been his idea, he hadn't foreseen all the virtues of it.

No bumping of elbows, knees, or heads; no more shouting and overshouting till your throat was raw; and, best of all, no more hunger. There was unlimited food. A family could live off a shred of mushroom and part of a celery string for more than a month, since vegetables hadn't been scaled to fit the people the way everything else had.

Harriet sang as she bustled about, preparing. The Gillmans were coming to dinner.

"So how is everything with you?" Mrs. Cray asked Mrs. Benini.

"No complaints," said Mrs. Benini with a big smile, showing her gold teeth.

"I can't complain either," said Mrs. Cray.

Former enemies, they beamed at each other.

Harriet stopped what she was doing to look at herself in the mirror. She was doing that a lot lately. Well, but she liked what she saw. Though she was no spring chicken and thickening a little around the waist and ankles, she was still petite. As all women were.

Everyone was in a good mood, except for Frankie, who glowered, under a cloud. Business, of course, was off. Profits had taken a nosedive now that there was so much window to look out of and people no longer felt so confined. Also, the pictures that Peñalba Walls provided seemed so small now on the enormous vertical spaces, they were insignificant miniatures—maybe not a bad thing to have, as an ornament, but at such a high price?

Frankie tugged thoughtfully, morosely, at the lock of black hair that hung over his forehead. "We'll have to start from scratch . . ." he muttered to himself. "Every situation contains an opportunity. A person just has to know where to look." And he looked at Spence. Spence would figure in his plans, of course. Spence the scholar.

Howard and Marjorie Peñalba returned from shopping. They had several bundles apiece, but didn't seem burdened because the bundles were all small and light.

"We hardly paid anything," said Marjorie with a laugh.

The money was small and light too.

"Don't forget," said Harriet. "Coreen's on television tonight."

True, television had lost some of its attraction, the screens being so tiny. But Spence decided to leave well enough alone. He wasn't a tweaker.

"Don't forget, Spence," Harriet reminded him. "I know you like to retire to your study after dinner." She had become remarkably complacent, indulgent toward him, allowing him to do the things he liked—to do his studying—without too much interruption.

He had his own study now, no longer a stuffy closet. There he could stretch his legs, even get up and pace if he felt like it. The parchment had a shelf all its own. The leather tome too. His silver implements were arranged in a tidy, spacious array to the right of his ample wood desk.

At dinner, the Gillmans bragged about their son Harold, who had just been promoted to vice president of the cologne firm. "They're diversifying," said Mr. Gillman. "A smart move. People aren't as much into perfume now that there's more air. A lot of air currents. Harold's in charge of diversifying. Smart boy."

"It's still nice to smell nice," said Lucinda, giving Spence a disconcerting smile and a searching look. "Don't you think?"

Spence looked away, as if he hadn't noticed her. He saw Frankie, who seemed to regard them both with amusement. Some things hadn't changed.

After dinner, the family gathered around the TV—everyone had his or her own chair—and watched Coreen dance on the Fred Day Show. It was an interpretive dance, with leotards and soft slippers.

"It's expressing unhurriedness," said Harriet. "She told me that. What a talented child. Who would have thought?"

"She's growing up," said Frankie in a curiously grim way. "Not a child much longer."

"How time flies," said Marjorie, musing.

No more lines, no more waiting in line, no more running to make the train, to get into position for when the doors opened so you wouldn't have to wait for the next, which might be even more crowded. No more crowds, not anywhere. Life had certainly improved.

That night, before Harriet went to bed and Spence went to study for a cozy hour in his study, that wonderful hour he had all to himself after midnight, when it was so quiet all around—

No more constantly flushing toilets, and no more mindless giggling from rows and rows of sleeping bags—

That night, Harriet put a hand on his shoulder and gave him a kiss on his cheek. An actual kiss, not a peck. He was astonished.

"I've been thinking, Spence," she said.

He braced himself, out of habit.

"You know, we could have a child. Don't look that way, we could. I'm not too old, I'm not much over two hundred, and modern medicine has made the whole process so much safer."

There was plenty of room in hospitals now. No waiting for a bed.

"A child?" said Spence, not sure he had heard right.

"Yes," said Harriet with an uncharacteristic wink. "Married people do have children on occasion."

There was no more overpopulation. Phone books could be lifted without danger of a hernia.

"We'll build a room for junior," said Harriet, planning the dimensions in her head.

"Junior?"

"If it's a boy. I'm sure it will be a boy. I've always wanted a boy. What do you think, Spence?"

"I haven't thought about it," said Spence truthfully.

He had a hard time picturing himself as a father. The responsibility. . . . Responsibility always made him uncomfortable. A baby was so helpless. You had to do everything for it. And you had to do everything right, absolutely right, not making one mistake, because the baby depended on you totally.

"Well, think about it," said Harriet, amused.

He managed a smile. It wasn't much of a smile. "I will," he said.

His wife gave his hand a squeeze.

## About the Author

*Michael Kandel is an author of science fiction* (Captain Jack Zodiac, Panda Ray)*; an editor of science fiction for Harcourt (Jonathan Lethem, Kage Baker, James Morrow, Ursula Le Guin); and a translator of science fiction from Polish (Stanislaw Lem, Marek Huberath). As a breather he works at the Modern Language Association.*

## About the Illustrator

*When Greg Tucker came to Earth, he assumed the appearance of the dominant species to better study their behavior. The mission: to record his observations in picture form. He found that life among humans can be difficult, but that kindness and humor help. He lives in Albuquerque, New Mexico, with his wife, Carol, also an artist, and two canids, Scooter and Butch.*

*Even when man becomes machine, he retains the qualities that define his humanity.*

BY JOSHUA MERTZ

# COPTER

LASLO SLOAN WAS ALL THE WAY INTO THE copter, his rotors buzzing with vitality, his guts full of guns. Down on the ground, a scrawny adolescent thief ran through a dimly lit alley. Sloan trimmed his rotating wing and watched with machine eyes as the kid ricocheted off a pole. Stoned on blade, the kid didn't feel a thing. In the furry glow of infrared, his skin coruscated with the liquid-fire signature of the drug.

They entered a forest of freeway support pylons adjacent to an alley, Sloan twisting and winding his way through with subtle adjustments of ailerons and lifting surfaces. When he was out on patrol, he pretty much forgot about his body. His consciousness was, through virtual remote manifestation, a Siemens-Interthink Mark VII Urban Police Assault/Pursuit Minicopter—seven kilos of electronic and mechanical miniaturization advanced to a level of almost biological complexity.

Below him in the alley, the kid leaped a bale of trash and sprinted past a loading dock. A robot forklift jerked to a halt as he ran in front of it.

Sloan, cruising three meters off the oily macadam, called for backup. Rodriguez answered that he was on his way. Sloan switched on his external speaker.

"Stop immediately or I will fire a tranquilizer."

The kid did not stop. They never did.

ILLUSTRATION BY GEORGE PRATT

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Supreme Sergeant Leonid Johnson of the Freedom Hump Brotherhood Army pushed through the door into the men's rest room. He hated the cleanliness of the place and spat in a sink as he walked by. Corporal Jones checked him through to the inner area where the stalls faced the urinals. General Heavy Paco dar Oman, a squat and powerful man with a trim beard, stood against the wall glowering at Leonid.

"You late, man."

Leonid shrugged, dropping his eyes briefly. Merely a formality. The other dozen or so members of the army regarded him with blank faces.

General dar Oman fished in his pockets and came out with a handful of DynoMep poppers, which he passed out to the eager hands of the others. Leonid took two.

Dar Oman held a popper up to his nose. The others followed suit. "This is a day of victory and revenge," the heavyset man intoned. "Make it bad." He nodded, and there was a mass snapping of plastic vials and a group inhaling. Smiles and shivers all around.

Corporal Jones brought out the sack of weapons, and General dar Oman spoke as he passed them out.

"Jake it, man. We on floor twenty-eight, dig, of the South Central Police. Got the slank in every direction. So we move smooth." He gave a pistol and a miniature grenade launcher to Hanker Man, Leonid smelling the tang of the packing gel as it passed by. He felt, too, the calm fire of the synthetic downer softening the edges of the world. "Me and Jones and Hanker go fo' the stash." Another grenade minilauncher and some automatic weapons went to RoGo Worthington. "RoGo gets two others and goes lookin' in the other direction." He poured the rest of the sack on the floor, scattering the weapons. "The rest of you got a place to be and a job to do. We meet at the garage."

Leonid chose a spraygun and a banana clip of explosive bullets. "I wanna go find the stash," he complained to dar Oman.

Dar Oman smiled broadly. "Sergeant Johnson, what you got to do is to do the copters."

"I just wanna git down," Leonid mumbled.

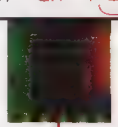
The other man did not hear. "We are gonna be famous all over San Frangeles," he announced to the room. Hoots of approval rose in response.

San Frangeles. From the opulent Marin Enclave on the Frisco Bay to the ominous Mexico Wall, a hyperurban quilt blanketed the west coast of California with mountainous metroplexes, vast yardless suburbia, and endless ghettos. The city frothed to the friction of a hundred fifty million humans, half as many cars, a billion guns, and untold thousands of strange social groupings such as the Freedom Hump Brotherhood Army.

The Brotherhood Army was a loose coalition of about fifteen heavily armed drug pushers who were known to move a lot of octogunk—octal meperidine synthate, to the medical world—on the street. The Brotherhood Army often mixed their powerful downer with the pharmaceutical fireworks of blade for a stratospheric speedball experience—your basic meat tenderizer for the brain.

Three weeks previously, when the octogunk supply had suddenly dried up, the Brotherhood Army had gone into a collective withdrawal, emerging several days later just a little crazier than before. And it was in this crazed state that they had planned a raid on the South Central Police Headquarters, a massive, fortified structure known as The Rock. Their goal was to get the stash of drugs said to be hidden in an evidence locker somewhere in the building.

Men and women were strapped into padded chairs, eyes closed, twitching like sleeping cats. Leonid tingled with excitement.



Only in San Frangeles.

Their assault was bold, vicious, and stupid. After infiltrating as maintenance workers, it took them three days to smuggle the weapons in. And at 14:23 hours, in the men's room on the twenty-eighth floor, the Brotherhood Army took up those weapons and went on their separate errands.

Supreme Sergeant Johnson made his way to the Remote Patrol Operations Center. He eased the door open and ducked in, spraying the control room with a full clip of explosive bullets. He locked the door to the hallway and crunched through the smoke and broken glass into the dim hush of the duty stations room.

Men and women were strapped into padded chairs, eyes closed, twitching like sleeping cats, lost in the St. Vitus dance of another reality. The place felt full of spirits. Leonid tingled with excitement.

Taking from his belt his personal sidearm, a lovingly cared-for 9mm he called "Maybe Girl," Leonid stepped to the first chair. He put the muzzle to the base of the occupant's skull and pulled the trigger.

The weapon's report was muffled, but still gratifyingly loud in the quiet room. The front of the seated man's head became a spatter of white and red on the wall.

He moved on to the next chair.

Engrossed in hot pursuit and far from base, Sloan had transferred a massive amount of his mental processes to the copter's onboard computer in order to minimize interference and radio-lag clumsiness. Not quite regulation, but close enough. "You need a lot of yourself out there to make decisions," he told his friends.

His "corporeal residence," as the manual called it, sat some seventeen kilometers away in a quiet room with his fellow Remote Patrol officers. His muscles twitched occasionally, and a thin rivulet of spittle ran down his chin to an absorbent collar.

Sloan was your basic cop on a beat, except he did it as a copter. Single, fifty-three, no wife, no kids, not much in the way of hobbies or social life, copter number one one six four. A career police officer, he had taken the Remote Patrol position eleven years ago after getting smashed up pretty bad on riot duty. A decorated officer, he did not always operate by the book. His blue jumpsuit, always neatly ironed, was not quite the accepted shade of blue, and he wore his long hair, just on the edge of regulations, in a neat ponytail to help his skullcap of wires fit more snugly.

Remote Patrol officers were discouraged, but not forbidden, from decorating their copters. Corporate or violent imagery was banned, but Sloan had managed to place a Megabunny decal on both his copter and his workstation panel. He used the cartoon character to put visiting schoolchildren at ease and help them visually connect him with his copter. He secretly reveled in having the bright pink superhero along for the ride, as it were, when arresting suspects. He even imitated the character's voice when he thought he could get away with it. Dark levity, he said. His superiors frowned on such behavior, but that was the kind of officer Sloan was—a bit of a rebel at heart, the kind of cop who didn't like an anonymous "they" telling him what he could and could not do.

So he let himself flow into his unit. He liked Remote Patrol. A lot. Being in full virtual was a welcome respite from his hemorrhoids and aching back. The alien exhilaration of being in the copter may have worn off years ago, but it was still an infinitely finer sensation than anything else imaginable. As a copter, he was agile, strong, and free. As a copter, he could do things an officer on the street could not.

The kid was getting winded. Sloan was authorized to fire tranqs at ten seconds, but he liked to give the suspects more time. Run 'em a bit. He knew this alley had no intersections for over a klick. He felt the peculiar pit-of-his-stomach sensation of his belly-mounted dart gun loading, and then he switched on his tracking laser, bringing a tingling to his left ear.

The radio shouted for attention. HQ on the emergency frequency. I'll be with you in a minute, Sloan thought to himself. He turned the radio off.

The adolescent thief dodged into a sea of dumpsters.

Leonid Johnson, his blood aflame with drugs and adrenaline, methodically walked the rows of chairs, carefully placing the hot barrel of his gun against the base of each skull. He could hear skin and hair sizzle before he pulled the trigger. A machine movement. Precise. He smiled as he did his work.

He had shot out the security cams a few victims ago, and now an alarm began sounding nearby. Two chairs down, one of the cops opened her eyes and raised a clumsy hand to rid herself of her wire skullcap, the other hand groping for her sidearm. Leonid shot her twice.

"Asshole," he muttered. "Mess with my music."

As he lifted the next victim's ponytail, he noticed a decal of a smiling pink bunny with huge muscles on the man's workstation panel. Cartoon characters did nothing for Leonid. "Bye bye, bunnyman," he whispered.

He carefully placed the snout of the 9mm at the base of the man's skull and pulled the trigger.

His dart gun tingled as it tracked the kid. Aflame in the infrared, the runner vaulted a tumbled dumpster and freeze-framed.

Laslo Sloan tri%#&^*& <x-l> **%! orf.cccc zz &&&(((@@#####&*^*+ . . .

. . . and came back up on the end of the alley approaching far too fast. Sloan dumped over to emergency circuits as the copter executed a ten-g loop and an Immelmann, sending him back in the direction he had come from.

He slowed and hovered.

There was no sign of the young thief. His internal map and a little math told him that he had been unconscious for almost twenty seconds. Unheard of. Something was very wrong. He prepared to throw the mental switch that would drop him back into his body, but a sixth sense told him to assess the situation first.

Sloan rotated in his hover, scanning the surroundings with his floodlight. A sparkle on the ground at the end of the alley caught his attention. He zoomed in.

It was the shattered carapace of another police copter. Rodriguez. He must have been coming in too fast and hit the wall. Had he blacked out, too?

Sloan landed in a clear area between two bales of trash and retracted the copter's blades. Extending treads from the machine's underside, he crawled closer, playing his spotlight over the wreckage. High-speed impact had reduced his fellow officer's copter to mangled bits of junk. Sloan felt what should have been a chill pass through him. In his copter body, it only made the infrared images flare.

He realized that he had shut his radio off during the chase. There had been some kind of emergency. He reactivated the circuits in hopes of getting some information.

The radio was a cauldron of hysteria. ". . . Mayday! We have six dead, twelve critical! . . . Officer down! Officer down! . . . This is CapCom! Check in by the numbers! . . . Screw the numbers! I've got a man with his hands blown off and . . . Jesus! They got bombs wired to them! . . . one of them's headin' your way, CapCom!"

Sloan sat inert in the alleyway, spotlight off, struggling to keep his professional calm. What about the other copters? he thought. Did they all have blackouts? He had heard nothing on the radio.

As if in response, the copter frequency crackled to life. "HQ. Four three two niner here. What's going on?" That was Thompson. Sloan's spirits lifted, feeling like the taste of full batteries. Thompson had been on a surveillance job, a high drifter. Maybe there were others.

HQ came back. "All clear, four three two niner. Return to base immediately."

"On my way," Thompson replied. "What happened?"

"Cannot say at this time. Advise you return to base."

That sounded like a good idea to Sloan. Return to base. He

would have to contact them, but he could do it on the way. He extended his rotors and took to the air, picking the underside of a traffic lane and heading for The Rock.

Sloan felt more at one with the copter than he had in a long time. Perhaps it took this level of excitement to bring out the best in him. He drifted through the flow of radio signals, following along as the SWAT team took back the Remote Patrol facility. The terrorist escaped into the ductwork, and the SWAT team lost him. Sloan listened intently as medical teams moved into the Remote Patrol room.

He realized that he had not checked in yet. He tuned to the comm band and paused to construct a message.

Thompson was chattering disjointedly. "And it was ten times more than that . . . broken sky . . ."

HQ broke in. "We have you on visual, four three two niner. Do you read?"

Thompson was oblivious. ". . . with all of their heads in a circle! My God! It was his blood . . ."

Someone must have left the channel open at HQ. Sloan heard a voice say, "Nothing, sir." Another voice responded, "Bring him down."

HQ broadcast a seven-digit number, and Thompson stopped chattering.

Sloan was within sight of The Rock, which was visible for twenty kilometers on a good day. He quickly calculated Thompson's trajectory and turned his longest lens on that piece of sky. There. A copter on landing approach.

He modulated a message onto a tight laser ("Thompson. Are you there? Sloan.") and beamed it toward the other copter.

Nothing. The echo indicated a drone. It was too far away for him to discern any markings.

Maybe it wasn't Thompson, Sloan thought to himself. There was, of course, one sure way to find out. But Sloan was not going to chance it. He fought an overwhelming compulsion to transfer his consciousness back into his body.

He banked and dropped to his left in a diminishing spiral, sloughing airspeed. He leveled out and hovered, a teardrop of black under a meter-wide blur of blade.

The seven-digit number HQ had broadcast to Thompson bothered Sloan. When he tried to think about it, he felt dizzy, an experience he thought he was incapable of while in the copter. He sensed hardwired aversion firmware. He literally could not think about certain things.

HQ had done something to Thompson. Why?

Terrorists in the Remote Patrol room.

Sloan's racing mind kept wanting to boot back into his body. He had to consciously restrain himself from activating the switchover circuitry. He composed a blip code and chanced a brief connection to the mainframe. Less than a second, yet the main computer was onto him immediately, demanding clearance even as the brief download finished. Sloan cut the connection. He had what he wanted.

The security cam video of the Remote Patrol room was grainy and dark. A man walked the rows of chairs, dealing death. At one point he looked up at the camera, smiling as he shot out the lens. Sloan isolated a frame that showed the young man's face: slim, scowling, hair popfazzed in the latest style, his pupils wide as saucers. On the video, the killer had not yet reached Sloan's station. He feared the worst.

So he hovered, listening in on the chatter on the medical channels, waiting to hear his own name.

The paramedic casually wiped his bloody gloves on the sleeve of the corpse strapped to the chair, staining the fabric a blackish purple. He and his partner were one of two teams doing a preliminary on the officer-downs in Remote Patrol. This was their fifteenth corpse in four minutes.

He rolled the head to the left, brushing aside the ponytail. His partner slid a sensor into the dead man's armpit and listened for a couple of seconds, then shook his head. "No signal."

The paramedic nodded and commented dryly for the benefit of the pinmike on his throat. "Number fifteen. Same diagnosis. Spinal cord severed by gunshot trauma." He peeled back a flap of skin dotted with electrodes. "The back of the skull has been shattered, the first several vertebrae pulverized. Resuscitation procedures not recommended. I hereby declare this subject . . ." He paused and wiped spattered matter from the name tag. "Laslo Sloan . . . legally dead."

The paramedic and his partner moved on.

Sloan had the strange sensation of someone grasping his head. Then wild data came bursting through him like wind shear on a fast run. He opened himself to it, soaking up the experience into free circuitry. Knowledge and feelings and memories all in a bundle. Not radio . . . something else. He heard himself declared legally dead.

Then it was gone, leaving only a trail of sweet silence in its wake, and he was just a guy wearing a copter.

And he was spiraling downward, his rotors in free-spin. Sloan willed power to his rotating blades, having difficulty with the everyday task. He managed to come to a clumsy landing at the base of a radio mast on top of an office block. He crouched there, a dark dollop of machinery watching the skies.

He was dead.

It made him scared and angry and sad. Strange hot flashes manifested as a fluttering of his optical circuits. Paralyzing terror. He was dead, and he knew it.

But here I am, he thought, looking at the dirty sky, listening to the radio, worrying. And he was observing himself in the act of observing; that meant that he was still alive, didn't it?

But he was a copter, a machine, not the balding guy with the ponytail and the bad knees. On board his helicopter body were several hundred terabytes of storage; maybe that's where he was. He sure as hell wasn't in his corporeal residence. Was he still human? He longed for the warm comfort of his body and wanted to tremble, but the metal would not respond.

He forced himself to do mental relaxation exercises, and the fibrillating electronics of angst subsided. He perused the potpourri of data he had inhaled during the trance state. Sloan felt as if he had been touched by a larger reality. A piece of data floated out of the jumble and attached itself to his RAM consciousness.

It was the knowledge of an incident from before he joined

the force; of an operator having a heart attack at his post and his copter coming back and killing the entire landing crew. Hence the seven-digit override code to forcibly clear the onboard computer's memory and the directive that any "abandoned" machine be wiped.

Thompson, or what was left of Thompson, had been jerked out of his copter and into a dead residence. The expensive hardware, neutered to drone status, had been ordered to return to HQ.

Soon now, someone would think to broadcast the override codes of all the copters that had been out on patrol. When that happened, Laslo Sloan would truly die.

Crouching in the shadow of the radio mast, he became very still. Fear pulled him inward, a falling feeling. Sloan shut down all his input and allowed himself to tumble into the gigaspaces of data. He let the fear pass through him, as he had been trained to do.

And there it was in the jumble of trance data. A pattern of knowledge that lay like dust across the random terrain of memory; an oblique cognizance visible only from a certain angle.

It was his override code.

Sloan set to altering pieces of his firmware, the commands residing in his physical wiring. The first thing he did was disable the switch that could throw him back into his now-dead body. That door shut, he turned to the override code.

The sergeant for Internal Security stoically watched his men feeding sensors into the air ducts. He cursed everything from the miserable coffee that festered in his gut to the arrogance of the SWAT team that had allowed the terrorist to escape from the Remote Patrol room. The SWAT team leader, the human side of his face as implacable as the machine side, had explained about procedure and how there was a prescribed formula for entering an event arena.

Screw procedure. Screw formula. The sergeant's stomach gurgled. The terrorist didn't give a damn about procedure and had disappeared into the enormous building's ductwork. Thus it was out of SWAT's jurisdiction and into Internal Security's.

With hundreds of dead and wounded in The Rock, the tension was high. Even though all the other intruders had been caught, to have a terrorist loose in the guts of the building was unconscionable. If he was not found, the sergeant was certain that it would be his neck to feel the guillotine of blame.

The last of the sensors was deployed, and the team leader gave the sergeant the high sign. The computer simulation had predicted a ninety-five-percent probability of the terrorist heading outward and downward, a classic escape route. The sergeant was using motion sensors and, after they found the terrorist, would bring in heavy gas.

Down. A running animal would head for ground level. He gave the order for the sensors to start tracking. No murdering street scum was going to outsmart him. No, sir.

Leonid Johnson, the terrorist in question, did not follow a classic escape route. He fled blindly. The lightweight DynoMep poppers they had done in the can were a poor substitute for the real thing. Now Leonid was in full octogunk withdrawal, his swollen sinuses on fire and a dozen knives twisting in his guts. Mentally he rode the high of having so gracefully executed a bunch of the copter slank, but physically he was bogue as shit.

Leonid, his mind a jelly of drugs and flight response, headed outward. And up.

Sloan raced full speed toward The Rock, flying high and inconspicuous. His strategy was spot and drop. A corner of his CPU constantly updated possible exit points for the escaped terrorist.

Inside, he was on fire. The face of his killer hung before him in virtual space, and time and time again he put the face on his internal firing range and shot his killer to bloody pieces. His fury felt like another hand on the throttle, and the colors from his opticals dipped toward the red end. He felt a lump of hate in the center of his mind, driving him like a whip. Revenge, revenge!

A quiet corner of his consciousness considered how poetically necessary it was that the terrorist who killed him should die at his hands. He was vaguely aware that the sense of irony came from the jumble of trance data.

Inside, he was on fire. The face of his killer hung before him in virtual space, and time and time again he shot him to bloody pieces.

The trance data. He could feel the depth of its presence like an open window over his virtual shoulder. He would have to deal with it soon. Not now.

The Rock lay just ahead. He dialed back the acid rain of his rage, forcing himself to become cool and calm. His long lens scanned the two visible sides of The Rock. A tiny speck emerged onto a high ledge, a minuscule anomaly in infrared.

Sloan launched himself into an intercept trajectory, cutting his motors and sailing as dead weight, commando style. The crawling speck resolved into a man on his hands and knees, emerging from an exhaust vent. He stood, gawky and disoriented, a twisted wire sculpture.

Fifty meters away, Sloan cut in his rotors and roared downward to a hovering halt before the terrorist.

Leonid pushed the grating aside and crawled into the dull sunlight. Every muscle cried out in pain, his back exploding with agony as he straightened up. His blood wept for octogunk. He leaned dizzily against the vent housing he had just emerged from and looked around.

He was on a service ledge high on the side of The Rock. A low railing ran along the edge. Before and below him lay a panorama of San Frangeles: late afternoon sun slanting across a carpet of ugly rooftops, mountains hazy in the distance, sky and earth blending at a smoggy horizon.

The view stirred nothing in Leonid. He saw only the upper rungs of a ladder protruding above the lip of the ledge some fifty meters away. He gazed at the ladder, waiting for his dizziness to pass.

Suddenly, a miniature helicopter dropped out of the sky with a buzzing roar and a whoosh of air. It hovered before him with a basso rumbling of rotors, an enormous black bumblebee.

Leonid fumbled for his sidearm, miraculously still in his waistband, and pointed it in the general direction of the minicopter. He knew about copters. This one wasn't acting right. It was hovering too much in one place. Leonid pulled the trigger.

The copter flicked out of the way of the bullet. It came back to a stationary position, then slipped to the left half a meter as another bullet whizzed by from below, followed by the distant sound of a gunshot. The copter came in over the roof, toward Leonid, blowing up a cloud of dust.

Then Leonid saw something that shot fear through him such as he had not felt since childhood. On the front of the copter was a decal of a smiling pink bunny flexing enormous muscles. But he had shot that guy, put a bullet through the back of his head. He couldn't be here. Leonid shook so hard the pistol fell from his hand, clattering over the lip of the ledge.

The copter's external speaker crackled to life, emitting a random series of squawks, siren samplings, and what seemed to be garbled words. Then the large, hollow sound of a cheap microphone turned up too loud. A voice spoke through the static. "You kill me. Now I kill you."

"No," Leonid whispered. "Please, no."

Sloan held his arms straight out, the gesture for hovering. The terrorist trembled before him, leaning against a vent housing. This was the man who had hit Remote Patrol. Sloan seethed with anger, his opticals fluttering, his ears ringing with rage.

He gritted his teeth, the signal to the gun in his belly to load a hollow-point round. Time was short. The radio babbled his position. His auxiliary lens saw a ground trooper fire up at him. He evaded easily, but the other copters would be here any moment.

Sloan reveled in the man's terror. Hate came like the taste of bitter bile. He closed his hands to fire the hollow-point slug that would pulverize the trembling man's torso.

And stopped.

This was not the way he had been taught.

A memory tumbled up out of the trance data. He had been furious with his sister over some toy. His mother had taken him aside and talked to him in the kitchen. He could smell the potatoes on the stove and the subtle perfume of his mother's hair. She told him that hate only made more hate. She said that he must learn to listen to his heart, not his blood. It had impressed him very deeply.

This was his blood speaking, and he no longer had any blood. Sloan had never killed anyone in the line of duty, and he was not about to start now. His anger waned, tempered by pity. Mercy blossomed in his mind, aching for a heart to call home.

In the blink of an eye he disarmed his belly cannon, loaded a tranquilizer dart, and fired it into the neck of the man on the ledge.

Leonid felt the tiny dart hit his neck and reached up to brush it away. By the time his hand was falling to his side he could feel the powerful tranquilizer coursing through his blood. It was pure joy, cool and loving. Better than the gunkiest octogunk. Bogue no more. He had done enough downers in his time to know that he should sit down immediately.

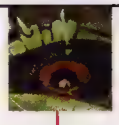
But his legs were beyond his control. Leonid felt his knees buckle and he did what he could to lean sideways and fall onto the ledge. As he crumpled, still fully conscious, his head bumped against the side of the building, throwing his center of gravity forward.

Fear tingled through Leonid's veins, battling against the chemical calm. He saw that he was sliding toward the edge and told his arms, commanded his arms, to reach up and grab the railing as he slid under it. But he could no longer feel anything, only a strange mixture of calm and terror as he slipped over the edge. Above him, the hovering copter receded.

The sky turned to stars as Leonid's head smashed against the first of several ledges he was to encounter on his long journey home to Mother Earth.

Sloan's satisfaction with his humane decision turned to horror as the man slipped over the side of the narrow ledge. For all his machine perfection, he was unable to do anything to help. He had no hand to hold out. Sloan felt sick to his stomach. His weaponry unloaded itself in response.

He felt sleek and mighty, the king of the skies. Eaglelike, he turned on a wingtip and dove through the traffic toward the steel canyons.



Sloan saw three copters leave the rooftop launch pad and two others converge from the sides. No time to think. He threw everything he had into power and lift and shot up into the sky.

A quick scan. Three of the following craft were half-remotes being run with virtual glasses and joysticks. The other two were fellow copters—Smith and Melchior. He remembered the report that those two had not been fragged.

Sloan approached an upper-level traffic lane at full speed. He did not slow down. He entered the wake of an airbus, twisting his control surfaces to use the turbulence as a slingshot. He burst from the traffic lane at half again the speed at which he had entered.

Two of the pursuing half-remotes bought it in the airbus's wake. The third half-remote lost speed avoiding them and fell behind. Smith entered the traffic stream obliquely, sacrificing speed for control, while Melchior had managed to duplicate Sloan's maneuver. They both opened fire, and Sloan danced around the projectiles.

He felt sleek and mighty, the king of the skies. Eaglelike, he turned on a wingtip and dove through the air traffic toward the steel canyons below. The two other copters gave chase, their shots whizzing past him toward the crowded thoroughfares below.

Sloan darted under a freeway and into the dim streets and alleys of San Frangeles. Full throttle, twisting and wrenching until the metal and plastic groaned, he led his pursuers through labyrinthine passages, into an environ where the reach of radio was only an echo.

Melchior smacked into the side of a billboard, going down in a ball of greasy smoke. Smith, sensing the weakness of his copter's radio link, fell behind.

Sloan escaped.

Laslo Sloan attended his own funeral.

He flew two traffic lanes above the One-Ten transportation corridor, tracking an armored truck that carried the bodies of the officers from South Central Police HQ. Sloan's corpse was among them. Their destination was the City Crematorium in Torrance.

A major part of him chased his own tail in fear, lost in Gordian knots of questions. What am I doing? Is it actually me? Where am I? The questions seemed academic, but he could not help asking them. Will the fire hurt? I want to go home.

I am my own home now, he said to himself.

All the while, another portion of himself liberated electronic space, for what he could not say, culling unwanted and incomplete memory. He was well into the trance data. The smell of freshly cut grass. Keep. Dinner with his mother and a stranger when he was a child, his mother's face missing and no sound. Gone. His first love. Keep. A clutch of sexual experiences. Maybe. What use were they? His brother humiliating him. Gone. Cool wind from the mountains. Keep. Money worries. Gone. Petty hatreds. Gone.

Sloan was changing. He was ashamed at the death of the terrorist. For all his altruism, it had been revenge. He knew better than to fire his weapon. Simple revenge: pure, cruel, and ugly. He erased revenge from his circuitry.

The truly self-made man. Sloan allowed himself an internal chuckle at his own joke, glad that he had kept his sense of humor. The truck took the off ramp reserved for official vehicles. The crematorium loomed in the hazy air.

For a brief moment he longed mightily for his body. It had been his home all his life, a safe, somewhat dilapidated residence, warm and familiar. He would miss it. Even his aching back. He bade farewell to the play of sweet wind on his skin.

Below him, the truck backed up to a dock, and prisoners in bright coveralls began unloading the body bags onto a conveyor belt.

Still, he thought, it won't be entirely gone. His bodily sensations had been assigned to aspects of his machine manifestation. The wind actually tasted sweet. The ocean of electromagnetic impulses he swam through smelled rich and musty. His belly was full of guns, and his hands and feet were the ailerons and armatures of his copter body. He felt good. With his atomic battery and solar cells, he could keep operating indefinitely.

In the building below, the one hundred fifty-fifth cadaver was duly logged, briefly blessed by a bored clergyman, and unceremoniously dumped into the incinerator.

Pain blossomed in Sloan like a black rose as his body gave up its final legacy. Wild data again. Not radio. A vast and savage storm, ethereal leaves blown on an ethereal wind. He shunted aside some of the gale-driven shards, allowing others to penetrate his crystalline structure. It was torment and joy, a buffeting storm and a calm lifting through the core of chaos, his heart and mind pierced by cold lightning that was more than mere electricity. Endless. Instantaneous.

Then it was done, and there was only the whispering tail of the wind.

And he was free.

## About the Author

*Joshua Mertz is the son of a rocket scientist and a word-savvy mother. A graduate of the USC film school, he loves to garden, drives a 1965 pickup truck, and wears size 8½EEE shoes.*

*"Copter" is the third published story in Mertz's San Frangeles series. The others include "Cat Got Your Tongue," published in* Aboriginal Science Fiction, *and "Roadgod," published in the Halloween anthology* Harvest Tales & Midnight Revels.

## About the Illustrator

*Born in Beaumont, Texas, in 1960, George Pratt moved to New York City in 1980, where he studied and then taught at Pratt Institute.*

*His first novel, the award-winning* Enemy Ace: War Idyll *(DC Comics/Warner Books) has been translated into nine languages, and was on the required reading list at West Point Military Academy. Current projects include* See You in Hell, Blind Boy; A Tale of the Blues, *a film documentary and novel;* Find Me A Voice, *paintings and prints of the Holocaust, with poetry by Gabor Barabas;* Harvest Breed, *a Batman graphic novel for DC Comics/Warner Brothers; and more.*

*A successful painter, Pratt is represented in Baltimore by Walter Gomez Gallery and in Houston, Texas, by the Jack Meier Gallery. He currently resides in Chapel Hill, North Carolina.*

*Even when the line between memory and dream becomes blurred, continuity is important.*

# Upstream

BY JAMES SALLIS

## I WENT through the curtain at 2:42.

And found myself standing at a slant in a doorway. Strange how one seems always to arrive in doorways of a sort: foyers, anterooms, hallways—always a sill. I encountered, as ever, that moment of odd disorientation, the sudden light an assault, volumes and sheer mass of the room threatening, yet the whole awash in blurs of gray, indecisive, ill-defined, as though eyes and mind for a moment had mutinied, refusing to focus. The scene, as it does so often, seemed familiar.

A woman sat wearing a T-shirt and overalls hacked roughly off above the knee to form shorts, hair pinned loosely with two visible pins atop her head, something of an architectural marvel. One waited for the word or stray gust of wind that would bring it tumbling down. Over her shoulder, on a computer screen set into the wall by the desk, multiple cursors and cues blinked, another face beside her own. She looked up as I appeared, requiring a moment to focus, wondering, no doubt, how long I might have been there and where I might have come from, though no alarm showed in her face. She had survived the worst America could do to one of its own, and was far past alarm.

She sat over a notebook, pen and hand remaining poised there as she looked up. Images (recalled? imagined?) trailed momentarily through my mind—then were gone.

"You cannot write that," I said to her.

"Sorry?"

"You are working on your memoirs of the conversion."

She nodded. No surprise that I should suppose this. For years now publishers, first one, then another, had been issuing announcements of the memoirs' imminent appearance.

"They will change the world," I told her.

For a moment she went on watching me. Then she capped the pen, an actual fountain pen from the look of it, laid it against the page upon which she had been writing, and closed the notebook.

"Well. That's precisely what we all want, of course. Every writer, every artist with his cache of pitiful paintings, his handful of understanding scattered about like chicken feed. But how rare it is for us to know that our work has had any effect at all."

"The changes will not be good ones."

"I see." And now she smiled. "Among the many things one might wonder, of course, are *for whom* the changes will not be good, just why you should lay claim to this peremptory knowledge, and why, possessing it, you would choose to bring the coals of this knowledge to Newcastle.

ILLUSTRATION BY MICHAEL MORGENSTERN

"Never mind," she said at my obvious confusion over the idiom. But her dismissal, despite all my language coaching, was every bit as indecipherable as the original phrase. (*Coals to Newcastle? Never mind?*) She saw that too, and laughed; then with two fingers forked errant hair away from her face. Again those trailing, memorylike images.

"Leaps of faith are not much in currency these days."

"Were they ever?"

She rose and stepped around the desk to stand before me. We were much of a size, I found.

"Among some, they were. That was what fueled us, what kept us going. What else could?" She leaned close to me, wrinkling her nose. "And if I'm not mistaken, I smell it on you now as well—that stink of belief. I know it well. It smells like self-importance, only sharper."

I shook my head. "It's you who are important. I am nothing . . . history's tool."

She laughed. "But how, my serious young man, how are any of us—ever—anything more?"

Taking my arm, she guided me to the window. I felt the heat of her body behind me as we stood looking out. When at last she spoke, her breath came against me in a tide at the same moment, and as affectingly, as did her voice.

"For hundreds upon hundreds of years we believed in progress. Believed in that, and not much else. We bowed down to progress, suffered and killed in its name, destroyed cities and whole civilizations to make room for it, fed our children into its maw.

"There below is what came of our belief. The world's great city, where I live. Where, in a sense, we all live now. For we found that progress forever eluded us. We couldn't create, we could only edit, endlessly rewriting, moving paragraphs of our history from here to there, cutting, pasting. Looping back to redo the same few scenes again and yet again, never getting them right but restlessly moving on anyway, only to be drawn back once more. Whatever we did, however we reorganized it, the text remained the same."

"There was a time you thought differently."

"Exactly my point. There was a time I had to." She turned back to me. "People down there in the great city are eating rats, pigeons. Those are the lucky ones. Their fondest hope is that someday bread, even stone-ground mustard, will be provided."

*"The exhaustion of resources, the exhaustion of the frontier, straggles down inevitably to an exhaustion of hope. Sea's edge, so long a wonder and a transport, becomes a kind of wall, a closure. Our cities no longer reflect, but contain, us."*

"Empty rhetoric."

"Rhetoric, yes. But hardly empty. That is what you were about to write." I picked up the notebook and opened it. "How long this morning had you sat there casting for words, knowing the old ones had been too much and too long used, that they were failing you again and always would? How long before you found the phrase"—here I read—"*the exhaustion of resources* unfurling out of your pen, pulling your mind and the rest along?"

At the door, a disturbance. First a knock, then his shy entrance, this four-year-old working so hard at being all grown up. "Mother, I'm sorry, but I'm hungry."

"Of course you are, dear. You go on out to the kitchen. I'll be right there. We'll have breakfast together, shall we?"

"Hello, sir," the boy said to me. "I do apologize for disturbing you."

"You needn't apologize. It is I who intrudes."

Stepping toward me, he offered his hand, so absurdly small and proper. "I don't believe we've met. My name is Edouard. You are a friend of my mother? A colleague, perhaps?"

"A pleasure to meet you, Edouard. I—"

"Edouard, perhaps you might go ahead and get the kettle started," his mother said.

"Yes, ma'am. Good-bye, sir. Take care."

"Thank you, Edouard." Then, when he was gone: "A fine child."

"Yes," she said after a moment. "Yes, he is, isn't he?"

When I made to return the notebook to her desk, she shook her head. "It's yours," she said. "Keep it. I believe you're right. I'll make a—I should say another—fresh start."

I removed the fountain pen and handed it to her. Our fingers touched.

"Yes," she said. "Thank you. Continuity is important."

And with that, my assignment was done. I turned to pass back through the doorway. She may have stepped up to it to watch me, I believe, as I left. If so, she would have seen nothing: In an instant I was gone.

In that instant I shot, as from a catapult, back toward my own time.

Nowadays the changes come so fast that we have no way of knowing what, of the images that move through our minds, may be memory, what mere shadow, imagining, dream. The myriad ghosts of our lives, lives that were, trail back in tatters, more tenuous with each moment, each remembering, and are lost. Long before I departed on this assignment, banks of computers cast and spun, weaving this newest, waiting world's probable face; they cast and spin still. Patterns appear beneath the loom's restless shuttle. But we can never really know to what sort of world we will be returning, never. This requires a massive act of faith—like my mother's.

I went through the curtain at 3:01.

## About the Author

*James Sallis has ten books set for publication this year, including two collections of poetry, a collection of short stories, and a book of essays. Samples of all his newest work are on display at* <www.jamessallis.com>.

## About the Illustrator

*Michael Morgenstern lives and makes art in New York. His work has appeared in* The New York Times, The Atlantic Monthly, The Los Angeles Times, *and* The New Yorker, *among other publications.*

*In a danger-filled future, when push comes to shove, brainpower still has it all over firepower.*

BY NICK POLLOTTA

# POWER TO THE PEOPLE

*MAGNIFICENT!* HOBART SCROLLED ON HIS MAIN MONITOR. Stepping from the bushes, I was forced to agree. A beautiful rainbow was shimmering in the misty air straight ahead of us. Hobart always noticed things before I did, but then, he did have radar.

Walking closer, I heard the boots of my powerarmor clank on something hard instead of thumping on dirt and saw we were walking on a prewar road of smooth concrete. Hadn't seen one of these in a while. The concrete strip cut along the edge of a high cliff, a beautiful blue lake to the right, the low waves cresting over the roadway to cascade down the other side in a steady rumble.

As I watched, a fat trout leaped from the lake and caught a crow in its fanged mouth. The bird screamed, wildly flapping its wings as the carnivorous fish gracefully dove back into the water with its meal and vanished from sight.

With a flick of my wrist I opened a small service panel in Hobart's thick metal arm and checked the indicators. "No radiation," I announced with a sigh of relief. "For a moment I was afraid we had walked straight into another nuke crater. Just like that one near Seattle."

*It's called Settle now,* Hobart scrolled politely, the words repeating as a whisper in my earplug.

"Yeah, right," I said with a weary smile. "Sorry. I keep forgetting."

*Well, the world has changed a lot since you escaped from that cryogenic freezer unit last year.*

True enough. I had been visiting a cousin who worked at a military lab when the nuclear warhammer fell. We each grabbed a cryogenic chamber to ride out the atomic firestorm, and I awoke centuries later in another section of the country. Where my cousin was now, or even if she was alive, I had no idea. Digging my way to the surface, I found a brand-new world, most of it delighting in trying to eat me. Or worse, putting me in chains. According to the history records, during the Cataclysm some sort of genetic virus had been unleashed to infect the flora and fauna, mutating most of it into new species, some benign, some deadly—intelligent lizards, giant spiders, devil bunnies, you name it. Next came the bonus of hard radiation from the nuclear holocaust. Then add all the bizarre technology left over from the Shadow Age, and anything was possible these days. Here I was, Jason Montgomery, a video store clerk from the twentieth century, walking around in a suit of sentient powerarmor. Welcome to Gamma Terra.

In the beginning, I did a lot of running away from stuff until accidentally finding the H*O*B*A*R*T class powerarmor in a moldy junkyard. What the letters stood for was long gone into the mists of time. My buddy wanted to discover their meaning just as much as I wanted to find my lost cousin. Or go home. But that was impossible. This was my new home, for better or worse.

Careful of my footing, I stole a glance over the edge of the cliff. It was a long way to the bottom, bare rocks jutting up from the misty stream below like the teeth of a dead dragon.

"Hobart, could we survive such a fall?"

Mathematical equations briefly scrolled on all three of the monitors set above the faceplate of his helmet. *Nope. We'd be Spam in a can, pal.*

So Hobart did have limits. That was important to know. Maybe the techs of the Shadow Age weren't as amazing as the legends claim.

Something odd about the falling sheet of water caught my attention. Studying the overflow, I noticed the side of the cliff was smooth and gently curved like the string on a bow, with patches of concrete visible amid the dense array of leafy vines covering the titanic structure. This was no cliff, but a dam. The thick carpet of greenery gave it the appearance of a natural waterfall. The old gov of Washington had erected dozens of dams across the state, most of them blown to smithereens by the nukes. But this one seemed in excellent condition, aside from its ivy toupee. "An intact dam," I mused. "Maybe a hydroelectric dam?"

*Could be. Most dams were constructed to be power plants.*

Listening to the fall thunder over the top of the concrete barrier, I felt my heart start to beat faster. Wow. This could be of incredible use these days, when a lot of folks used candles to see at night, and ice was only a myth. A steady supply of electricity would be the hallmark for returning civilization to this whole valley. There would be refrigeration for food, heat in the winter, hot water for baths, electrified fences to keep out the nasty mutants, lights, machines, computers! Heck, electricity *was* civilization, even more so than fire.

"This is great!" I cried, spreading my arms. Here was an opportunity for me to make a difference, maybe make a small part of this world more like the home I left behind.

*Yes, it is,* Hobart scrolled. *If the water hasn't gotten inside to rust the machinery and generators.*

"Only one way to find out," I said reluctantly, slowly glancing about. There was no sign of a door or any windows under the dense growth of ivy, but there had to be an entrance somewhere. "Guess the first thing would be to find some way inside and see how bad things are."

*Then open the floodgates to make the lake water rush through the sluices, instead of over the top.*

"You know how to do that?"

*Checking onboard encyclopedia . . . yes, I do.*

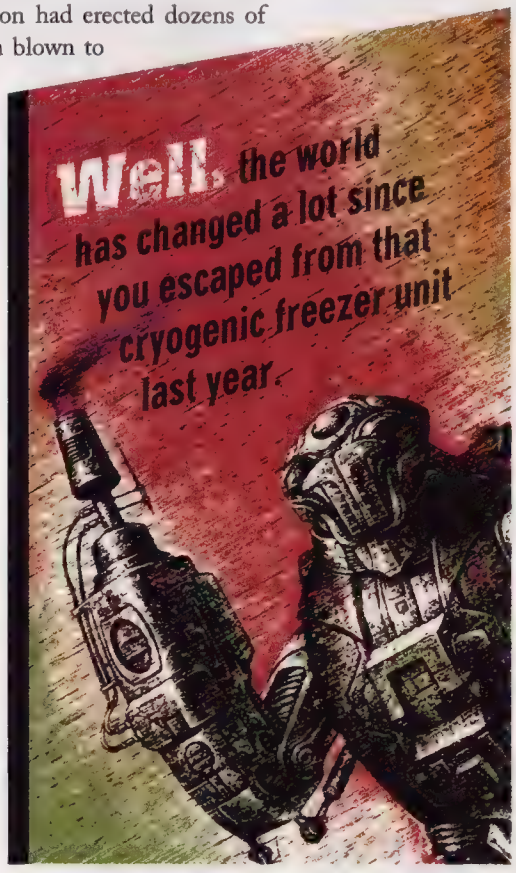
"Great," I said, rubbing our gauntlets together. "Okay, let's see what we've got."

*Could be occupied already,* he warned.

"Then we apologize for intruding and leave."

*Fair enough.*

Watching our steps, I carefully waded through the overflow, fighting against the current before reaching a dry area where a large clump of ivy afforded some protection from the steady wash. I grabbed a handful of ivy and ripped it free to find blank concrete underneath. The next handful uncovered a sign too faded with age to read. It took an hour, but I finally found the entrance to the power plant. The door was a metal oval like one of those watertight hatches in a submarine, with a rotating wheel lock to open and close the portal. Pretty smart. Flooding was a natural threat to the equipment here, and the designers seemed to have planned for the worst.




The wheel lock was rusted solid. A short dose of the sonic screamer cannon built into Hobart's helmet shook it loose, but we still had to exert maximum force to turn the stubborn mechanism. The door loudly creaked in protest as it opened, and we slipped inside with only a small crest of overflow coming in with us. Inside, the floor became an open grate, and the water gurgled away down the dusty pipes. Beyond the grate was a plain terrazzo floor stretching along a dim corridor with vague doors on both sides. Hobart clicked on his halogen forehead lights, and I checked behind a few of the doors to discover offices piled with ancient paperwork. The water coolers held only dead mold, and skeletons lay sprawled on the desktops, the yellow bones and tattered strips of clothing giving off dust with the arrival of fresh air.

A left turn down another corridor led to a set of double doors. They swung easily aside, and we walked onto the main floor of the hydroelectric power plant.

The room was gigantic, banks of exposed relays and busbars lining the far wall, another wall full of meters and countless circuit breakers. Dominating the center of the plant were tremendous humps of metal rising meters high, each surrounded by an iron pipe railing marked with bright black and yellow warning stripes. These were the outer housings of the main generators beneath the thick concrete floor. Big stuff, but then it was built to supply power to whole cities. As we looked out across the area, nothing stirred.

"I wonder if this place has been discovered?"

*If not, it's our property by right of salvage.*

"Possession is nine-tenths of the law," I agreed wholeheartedly.

*The other tenth being firepower,* Hobart added.

"Sad, but true."

Corrugated metal stairs led to a catwalk on the next level, and behind a dusty expanse of Plexiglas was the main control room. Bingo. The door was locked, but Hobart simply turned the handle anyway until the sheath of the spindle cut through the

ILLUSTRATION BY FRED FIELDS

bolt, and we entered without any trouble.

The control room looked like the inside of Dr. Frankenstein's castle in those old black-and-white movies. Dozens of consoles, monitors, dials, lights, indicators, buttons, levers, keyboards, and a bazillion switches filled the control panels on three walls.

"Where do we begin?" I asked. I could change a fuse in a car, or replace a circuit breaker in a house, but this was totally beyond my experience.

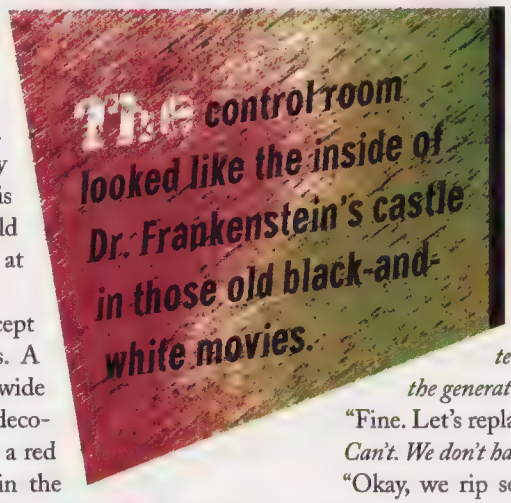
Hobart walked to a control panel and deftly removed the cover to expose its complex nest of colored wiring.

*We start here.*

HIGH ABOVE the small mountain lake, a stone ledge extended from the face of a cliff like the hand of a beggar. Several canvas tents formed an arc around a small campfire, the low flames warming an iron pot of leftover stew.

Dressed in light plate armor and chainmail, a dozen warriors stood guard around the campsite, their hands tight on the pommels of their swords, a lone woman with a scarred face cradling a crossbow in her metal-clad arms. There was no conversation, no jokes or casual banter. The knights stood alert, wary of danger, but their hard faces were bright with eagerness. This was the valley, as foretold by the soothsayers of old. They had found it, and now they knew they were close—oh, so very close—to victory.

Inside the largest tent, a lone knight sat in a gilded chair, hunched over a table covered with ancient maps and charts. Unlike the others outside, this noble was dressed in heavy plate armor, his greaves and armbursts gleaming with gold filigree. A broadsword hung at his hip, and a plasma pistol rode in a specially rigged shoulder holster. About his waist was a Shadow Age force-field belt. Its power indicator was dark at the moment.




His hair was long and black except for wings of silver at the temples. A clean tabard was draped over his wide shoulder, the white length of cloth decorated with the symbol of his order: a red square with an unbalanced scale in the center. It bore no personal or family crest—the Knights of Genetic Purity considered all humans to be family. Everybody else was the enemy.

Without fanfare, the flap of the tent was thrown aside and an excited young knight burst in, dropping to one knee.

"My liege!" he spoke to the floor, a hand on his heart. "The monitors have registered a weapons-grade power surge."

Calmly, Sir Gregor Matheson continued to peruse the centuries-old maps and charts. "Source," he said.

"A megawatt laser, my liege. Possibly a polycyclic military design."

Now Matheson glanced up from his reading. "Is . . . is it the Great One?" he asked. By the Holy Makers, if the ancient warrior had been awakened by others, it could be the end of humanity! The Iron Society wanted to unleash the relic on the detested humans as much as the Knights of Genetic Purity wanted to unleash it upon the hated mutants.

"Thankfully, no, my liege," the warrior said, daring to face his high commander. "It is nowhere near powerful enough to be the relic we seek. Or one of his lost brothers."

Matheson exhaled in relief. "Good." Yet, an energy weapon being fired in this peaceful valley was unusual and could mean trouble. Someone in possession of such a weapon might know about other energy sources—might know about the relic. "Can you track the origin of the pulse?"

A head shake. "No, my lord. I would need two more readings to triangulate a location."

"Then keep the monitor manned day and night."

"Yes, my lord!" The warrior exited quickly.

"We're going to find that hidden dam," Matheson angrily growled under his breath. He folded up his charts and diagrams and put them inside a pouch on his belt. "And I don't care who I have to kill to do it."

HOBART AND I WORKED through the night, following cables and using the laser on its lowest setting to solder connections weakened with age or coated with corrosion. By midnight we had an answer: The feeder pipes were open, water now flowed through the dam instead of over the top, and the secondary turbines were turning freely. Unfortunately, two of the generators were trash, but the third was working fine, every light in the green, the polyphase inducers, ah, well, polyphasing, I guess. Only no power came out of the transformers. Every dial was on zero—not even the faintest flicker on the main gauges.

"What did we miss? Must be a break in the line somewhere," I said wearily, fighting back a yawn. Lord, I missed coffee.

*Checking*, Hobart scrolled, a side monitor in his helmet glowing into life to show circuit diagrams. *Ah! The redundancy systems identify a missing section of cable between the generator and the transformer.*

"Fine. Let's replace it."

*Can't. We don't have any replacement cable.*

"Okay, we rip some out of the dead generators and splice them to the transformer. Shazam! Fixed," I suggested hopefully, feeling the dream of the dam slipping away.

*No good, wrong gauge. We need high-voltage cable to handle the load, and lots of it. Twenty meters.*

Sixty feet? And we had been so close to fixing this thing. Unlimited electricity—that would save so many lives, end so much misery and pain. . . . Think, Montgomery, think!

Listening to the turbines' muffled whine, I ran through a dozen possibilities in my mind. "Hey! What about the high-tension power lines that carry the electricity to distant cities! Could those handle the load?"

*Yes, if any electrical towers are still standing.*

Leaving the power plant, I walked to the edge of the dam and studied the valley below through the main monitor. With the lake pounding through the sluice gates, the roadway was now dry and safe to use again. Nothing much was in sight except the pool at the bottom of the dam, a stream created by the overflow, and some small hillocks covered with evergreen trees. High above us in the nighttime sky, the Seven Sisters raged their endless warfare, the last orbiting battle satellites silently attacking each other with lasers, the colorful beams slashing across the stars in the pyrotechnic fury of high-tech combat.

Down here on Earth, the woods were dark and still. A distant river off to the west meandered through the twisted ravine of a nukequake crack, and several thin curls of smoke rose from a village along the eastern horizon.

A night breeze blew through the vents in Hobart, and the air smelled wonderful. I tried to recall what pollution smelled like and drew a blank. Like my family and friends, even the smells of my time were gone forever.

*Well, no towers on radar,* Hobart said. *Looks like this whole thing may be a bust.*

"You give up too easily," I replied, pointing into the distance at the village. "Maybe those folks salvaged the cables from the towers. People always need copper to make bullets."

*Maybe, but it's a long shot at best.*

"Have to start looking somewhere," I said. "But in the morning. I'm bushed." I trundled back inside and closed the heavy door. Back in the control room, Hobart deflated his interior cushions and cycled apart, his domed helmet rising and angular chest plates spreading wide on telescoping rods of burnished steel. Gratefully stepping free, I stretched my back and worked a few kinks out of my muscles. Riding in powerarmor was a lot of work. Still, it beat walking.

Dinner was hobo stew, dried meat and veggies from my rations pack dumped into a bucket of lake water and brought to a boil by Hobart's all-purpose laser. It was edible. Then, removing my sneakers and socks, I lay down in my bedroll and slept soundly in the control room, the great machines vibrating softly through the floor, my pal standing a vigilant guard through the night.

We left in the morning, after a brisk wash and a careful shave. After covering the door to the power plant as well as we could, Hobart and I walked into the forest and started down the steeply sloping mountainside. On the valley floor, walking along the banks of the stream, we saw evidence of the Cataclysm everywhere: The mutated branches of a white birch hung thick with apples, and several nameless flowers even seemed to turn their petals to watch us pass. The effect was unnerving.

After a few miles, the stream fed into a raging river with a dilapidated iron bridge spanning the rough waters. The structure looked about as strong as a politician's promise, and as we started across the whole thing shook, several pieces sprinkling into the river below. I raced back onto firm ground again and caught my breath.

"I've had fun before," I croaked, "and this ain't it."

*No wonder the dam was undisturbed,* Hobart scrolled in amusement. *Who would cross this thing?*

"Nobody sane."

*Leaves us out, pal.*

"No way we are ever going to make it across," I stated firmly. "Unless we fix the bridge."

*Allow me.*

Hobart took control of the laser and started firing short bursts of high-intensity beams at medium aperture. At every strike, the rusty steel glowed white hot and a spray of sparks erupted. He stopped after a few minutes and announced it was now safe.

Yeah, right. But when I tried a step, the structure did not quake or jiggle. We reached the other side without incident and continued walking toward the village. Time passed quietly—until Hobart suddenly froze, his scanners blinking wildly. After a second, he moved onward.

"Trouble?" I asked tensely, scrutinizing the bushes for any hostile activity.

*Could have sworn we were being probed,* he scrolled. *But it's gone now. Maybe one of the Seven Sisters checking its altitude.*

Maybe. I glanced around and saw nothing but lush trees and majestic mountains. One in particular had an odd ledge sticking out of its side, like a waiter asking for a tip, but the angle was wrong, and I couldn't see whether anything was up there. Cycling open Hobart for a minute, I passed through my Magnum and he tucked the big-bore weapon into the leather belt that held the rest of our tools. It wasn't much, but better safe than sorry and all that jazz.

Late in the afternoon I started to see log cabins amid fields of growing crops. Then a few prewar houses, roofs sagging with rot. Suspicious homesteaders watched us clump by with hands clutching axes and rifles for protection. "Good morning!" I called out, giving a cheery wave.

"Just keep moving, tick-tock," a grizzled farmer said, working the bolt of his hunting rifle.

Ah, well, couldn't really blame him. Hobart was armor plating eight feet tall and four feet wide, with a pistol in his belt and a rocket launcher strapped to his back. Of course, we had no rockets, but that was hardly common knowledge.

The farms and houses started appearing closer together, and soon the dirt road showed signs of heavy traffic, deep gullies cut into the soil from wheeled vehicles. A bit farther along, the road became cracked asphalt, uneven sidewalks returned, and telephone poles stood in mute testimony of forgotten days, the wires long gone. The village was the usual collection of crude huts and aged ruins standing side by side in a wild mixture of architectural styles. People stopped whatever they were doing to watch us pass, often gripping their weapons until we were around the corner.

*Friendly place.*

I agreed. A plastic sign nailed to a phone pole listed the town as "Battle Ground." Nice name. In the middle of the town stood a wooden watchtower, a brass alarm bell hanging from its rafters. A grizzled woman with binoculars stood guard, a plasma rifle cradled in her hands.

The guard challenged me from a distance, bringing her weapon to the ready position. I put up my hands to show her I wasn't interested in fighting, and she motioned me closer.

"I'm looking for someone who sells tech equipment and supplies," I said when I was close enough to speak with her. "Anybody like that around here?"

"Iron Mike might have what you want," she offered. "Look for 'im at the Acorn Inn—three, four blocks over that way." She pointed to her right. I said thanks and started to walk.

Beyond the open doors of a blacksmith shop, a man was pounding red-hot iron on an anvil with his cybernetic fists. The smell of soap and soup hung in the air. A potter was banking her kiln for the night. Music tinkled in the distance. Somewhere children laughed, chickens cackled, and then sounded the steady chop of a butcher hard at work. Ah, life. It felt good to be among people again.

Finding the Acorn Inn was easy. After I had covered a couple of blocks, I heard drunken singing in the distance and went toward it. A ramshackle supermarket was apparently now the main tavern in Battle Ground.

A guard at the front door armed with a baseball bat watched with bulging eyes as Hobart thumped into the tavern. The crowd inside hastily scrambled out of our way.

The windows were covered with wooden shutters on the inside, most likely to protect the glass from flying chairs during fights. Alcohol lanterns hanging from chains brightly lit the supermarket, and sawdust and nutshells thickly covered the floor. Redwood picnic tables with attached benches filled the right side of the tavern. The customers eating and drinking here were a little bit of everything: humans, reptiles, mutants, animals, and a busty waitress with damn nice artificial legs who was cleaning tables and serving drinks.

A long counter served as the bar, with a million gold coins worth of prewar booze stacked behind thick wire screens. The bartender was a lizard with a moustache.

The other side of the converted store boasted a similar counter, but this one was stacked with widgets and gadgets of every description: fishing reels, a big assortment of knives, CD players, car jacks, combat boots, huge trays of transistors and computer chips. One whole section held rifles, handguns, and rows of ammunition—each individual bullet carrying a price tag—plus packs of black powder, flintlocks, butane lighters, and pieces of anti-rad shielding for personal use.

A lot of folks were just looking, a few buying. Behind the counter stood a burly man with a jigsaw-puzzle face of spare parts and scarred flesh. One ear was clearly plastic, and a steel eye gleamed from under his bushy eyebrows.

*That's got to be him.*

"A Gamma Knight!" someone cried out in delight. "How wonderful!"

*Huh? What does that mean?*

"Beats me," I said, shrugging inside Hobart where nobody could see. "Maybe that's an old name for power armor."

*Hmmm.*

"You Iron Mike?" I asked, going to the counter.

A nod. "That's me. Now what do you need? I have top-notch lasers, implosion lances, missiles, you name it. And if I don't have it, I'll . . . acquire it for you."

I leaned closer, and so did Mike.

"We need some spare parts," I said softly. "Something special."

His eyes brightened. "Ah! What kind of special are we talking here? Nerve gas? Land mines?"

This guy had weapons on the brain. "We're looking for some insulated cable. Big stuff. High voltage, twenty meters."

"The kind that comes off high-tension towers," Hobart added over his external speakers.

Iron Mike blinked at the double voices, but made no comment. He probably saw stranger than us every day.

"Electrical cable," he mused, crossing his arms, while rubbing his chin. "What for? Goin' to try and fix that old dam? Ya can't even get inside!"

Playing it cool, I said nothing.

"Or can you?" Iron Mike said in a cunning tone. "Listen, I got what you need, but the price is high. I want in on the deal. You get that dam working again, and we could make a fortune selling power to villages all across Settle, recharging weak synergy cells, arc welding, all kinds of stuff. What do you say, partner?" He held out a hand.

*There goes half our profits!*

I hesitated. "We aren't in this for profit," I subvocalized, so only Hobart could hear me.

Since we had nobody else to buy from, I decided what the hell. The most important thing was to get the dam working again. The details of who got what could be figured out later.

"Deal," I agreed, and carefully shook his hand. Then we moved into the back room to talk in private.

"GOT IT, MY LIEGE!" the knight cried, rushing out of a tent.

Seated at the campfire sipping a mug of hot brew, Sir Matheson turned. "Where?" he demanded, taking a sip. The lord prided himself on never showing undue emotion before his troops.

"Two miles due south by southwest," the technician cried. "Massive energy weapons fire. Definitely some sort of battle."

Rising from his seat, Matheson went to the telescope at the edge of the ledge and adjusted the focus to scan in that direction. There was nothing in sight but a waterfall . . . no, the water was flowing out of the middle of the cliff, not over the top. By the Maker, it was the dam!

"Mount up!" the lord shouted, drawing his sword. "Our moment of glory is here! Soon the Great One will be ours to command! Let nothing stop us now. Victory or death!"

"Victory or death!" the soldiers chanted, and climbed onto their horses, preparing their crossbows and a carefully cushioned stack of limpet mines.

WITH IRON MIKE'S HELP, we had the new cable spliced into position by noon the next day. Once more Hobart hit the master switch in the control room, only this time lights turned on in every room of the power plant. In the office below us, a CD player burst into music. In the corner, a small refrigerator began to hum.

"Rad me," Iron Mike said in astonishment, then delight. "It actually works!"

Rushing over to the instrument wall, I checked some of the readings. "Looks like we have enough electricity to power a lot of villages," I said happily.

"But what if the generators break down?"

I waved that away. "Those babies are really tough. This plant will run for decades with minimum service. A monkey could operate this place now."

"Then I really don't need you any more, do I?" Mike laughed bitterly as he drew a plasma pistol. "Time to die, tick-tock!"

Moving with machine speed, Hobart slapped the gun out of his grip. The weapon discharged as it hit the floor, vaporizing a large chunk of wall. Cradling his busted hand, Iron Mike staggered backward, cursing, his jigsaw face twisted into a rictus of pain.

I advanced upon the wounded man. "Now we give you a choice. Walk out now, or we toss you over the side."

*No way,* scrolled Hobart.

"I'm bluffing," I subvocalized. "Play along."

*Gotcha.*

"Maybe we should break some more bones first," Hobart growled in a really nasty voice, reaching out with his huge metallic hands.

That did it. Iron Mike went deathly pale and started screaming for help. Darting away from us, he raced to the office door, threw it open, and dashed down the catwalk.

"They're wise!" he shouted at the shadows under the humming transformers. "Zap 'em!"

Just then, several armed men stepped out of the darkness with plasma rifles in their hands. They were the men from the tavern—and those plasma rifles would burn us faster than marshmallows in a microwave. Time to play the bluff card again. I gave a contemptuous chuckle, then said, "Are you fools really going to use energy weapons inside a power plant? That'll blow the whole place higher than the Seven Sisters! With you inside!"

"Just brought these for insurance," one of the men snarled, jerking a cybernetic thumb. "Our hounds will handle you two."

"Yeah," another agreed with a smirk. "They'll eat ya alive."

Huge black dogs wearing armor plating sprang out from behind the men, their snarling mouths full of steel teeth.

Hellhounds!

As the monstrous beasts charged, I cursed myself for not taking Iron Mike's fallen plasma pistol. I fired the laser while Hobart started banging away with the .357 Magnum. But neither weapon seemed to have any effect on the stentorian hounds.

KICKING AT ONE of the dogs to make it retreat, I slid my arms out of Hobart's sleeves and jammed fingers into my ears. "Hit 'em!" I shouted. "Full power, no mercy!"

*Now you're talking.*

Hobart cut loose with the sonic screamer cannon on full power, maximum dispersal. My buddy actually vibrated as the subsonic blast filled the power plant with concentrated sound waves. Contained by the thick walls, the screamer was magnified ten times; doors slammed open, glass shattered, tools flew off tables, and chairs toppled over. The hellhounds dropped flat, while Iron Mike and his gang grabbed their heads and toppled over, bleeding from the ears.

As the screamer clicked off, I quickly searched the twitching men, stuffing their assorted handguns, rifles, and grenades into my trading bag. Children should not be allowed to play with dangerous toys. Two of the men had portable missile launchers in their backpacks, obviously brought along to deal with Hobart. I took the four best missiles and loaded them into our empty launcher. The rest I ripped apart and ground to pieces under our boots.

*Okay, time to take out the trash.*

"You betcha." Starting with the drooling hounds, I hauled their limp but breathing bodies outside and neatly lined them up on the roadway. It took a few trips, but soon the whole gang was lying in the sun. Doing a brief recon of the plant, we found six more of Iron Mike's men on the floor unconscious in various rooms. The ugly creep certainly did not do things halfway, I'll give him that.

*Now what? Call the sheriff?*

I started to answer when an explosion faintly shook the dam.

*That was plastique,* Hobart reported. *And a lot of it. Could be reinforcements.*

"Only one way to find out." I rushed to the edge of the dam and risked looking down. Near the spill pool a dozen or so people in medieval armor were placing something round and fat inside a smoking crater in the side of the dam. They ran away, and there was another explosion. When the smoke cleared, the hole was much bigger. "Holy crud, they're trying to bust the dam apart!" I cried.

*Must be revenge for killing their boss.*

"But he's not dead."

*Tell them that.*

"He's not dead!" I bellowed through Hobart's speakers at maximum volume. The words echoed down, but became lost in the steady roar of the water rumbling through the sluice gates.

*They'll never hear us this way. Should we fire the missiles?*

Nervously, I chewed a lip for a precious minute. "No good. That might only set off all their explosives. We have to get down there and stop them in person."

*Mind telling me how we're going to do that quickly?*

I grabbed the thickest length of ivy within reach and gave a gentle tug. It broke apart in my gauntlet. Blast, we were far too heavy for the ivy to support.

*We could use the cable.*

"No time." I glanced at the unconscious men. Hobart and I could simply run away, but when the dam went, they would die. I may talk big to try and scare folks out of a fight, but when push came to shove, I simply could not murder anybody in cold blood. Even thieves. Only one choice, then.

"Geronimo!" I shouted, and jumped off the dam.

*What are you, nuts?*

Down we plummeted. Seconds later, Hobart fell through the rushing water of the sluices, the flow pushing us away from the dam, but also slowing our speed considerably. Then we emerged into the open air, falling even faster.

"I'm going to aim for the pool!" I said, spreading my arms and

trying to angle our descent. "The water will cushion our impact."

*At this speed, the water will feel like cement,* Hobart corrected. *Do nothing, and go limp. That's an order!*

Before I could respond, Hobart reached out with both hands and we jerked to a violent halt, then brutally slammed into the side of the dam with ringing force. Disoriented for a moment, I dimly realized that Hobart had grabbed the rim of the blast crater.

As my vision cleared, I saw stacks of mines in the ragged hole directly in front. Fat disks with blinking green lights. Some sort of mining charge, not military-grade plastique. That gave us a chance. I reached in and crushed the nearest one in my fist, then grabbed the next and simply threw it over my shoulder. The third went flying, another followed; then all of the blinking green lights flashed brilliant red.

Hobart shoved us away from the hole, and we were still airborne when the rest of the plastique detonated. Instantly I was encased in silence as he cut off the audio receivers, but I could feel the rumbling detonation through his armor and padding. We tumbled away amid a terrible crackling and crunching. For a brief second on the aft monitor I saw a small section of the dam break apart and a rod of water lance out like a lased tidal wave. The column of water shot across the valley, ripping trees from the soil and blowing apart a stone wall on a small hillock.

"Tree!" Hobart warned, and everything went black.

WHEN I CAME TO, Hobart was stumbling across the ground, the water level in the valley at our knees and rising.

*You okay?*

"Not dead yet," I muttered, trying to ignore the terrible pounding in my head. The colossal concrete embankment rose majestically into the sky—ruined. The water rushing through the hole, blocked off for half a millennium by humanity's handiwork, was returning to its natural state. The face of the dam was a spiderweb of cracks, the hole itself larger than a school bus. Any attempt to make repairs on such a scale would be useless. There was no way to undo the damage.

"It's dead," I said in an emotionless voice.

*I concur. The statistical probability of us returning the dam to working condition with the materials available to us is . . . oh, heck, it's impossible.*

"All that work, all of our plans, snatched away by a bunch of Swiftian yahoos in tin suits!" I tried to control my temper and discovered that I really didn't want to.

"Where the hell are those knights?" I demanded, feeling angrier than I ever thought possible. Okay, maybe formerly I couldn't kill in cold blood, but now. . . .

Hobart swiveled his head. *They went in there.*

Across the valley, the rushing torrent had washed away a whole section of the landscape. Under the hillock was now exposed a concrete dome with an armored doorway larger than a movie star's ego. The structure resembled the dome that I escaped from when my cryogenic freezer broke down. "Some sort of prewar military lab," I guessed.

*This is what those medieval guys were after in the first place. They blew the dam to uncover this buried installation.*

"Don't they own shovels?" Now I was really annoyed. Grimly, I started across the valley toward the dome when the armored door rose, and out walked the biggest freaking armored war machine I had ever seen. Made Hobart look like an inflatable toy. Built along the lines of a spider, it stood twenty meters tall, had six legs, a couple of missile launchers, a turbolaser, several machine guns—the whole nine yards. The imposing war machine was in pristine condition, with no sign of rust or wear. I could only gape as it strode by without stopping or attacking, its six pumping legs splashing along the reborn river.

*Wow. A soldierbot,* Hobart scrolled. *Another type of walking military hardware built during the Shadow Age.*

"So it's just like you?"

*No. That machine's only purpose is killing.*

There was no sign of the knights, so we advanced upon the dome, weapons at the ready. As we got close, I could see bodies sprawled on the terrazzo floor, and I rushed inside. The moment I crossed the doorjamb, dozens of flying ceramic eggs came at us in a wave, built-in needlers spraying us with thousands of flechette rounds.

*Sentinel droids. Better take 'em out fast.*

"No prob!" I hit the first one with the laser and cut it in half; the pieces fell away sparking and smoking. But the rest separated and dove in from every angle. I ducked one and got blindsided by another, their antipersonnel needles hissing steadily.

The sentinels spun around us like angry bees, slamming into us again and again, grimly determined to stop us any way possible. Hobart tried the screamer with no results. Then I caught one in my hands and turned it around, hosing the others with the voracious stream of flechettes. My prisoner stopped almost immediately, but the others were damaged or dead already.

I crushed the last sentinel and tossed the sparking ball of rubbish into a corner. Then I rushed to the side of the nearest fallen knight, but it was too late—he was dead, crushed flat. So were the rest, smashed like bugs underfoot by the giant war machine. Then a low moan caught my attention, and I knelt by the side of an older man with graying temples. His leg was bloody pulp from the knee down, so I ripped off his tabard and tied it as a tourniquet around his thigh to stop the bleeding. Then I cauterized the wound with our laser. He tried to speak, and only coughed up some dark fluids. Not good.

"We . . . were wrong," the knight panted, fighting to stay awake from the blood loss. "Found the base . . . ancient war machine . . . clean the country of all mutants! B-but . . ." He broke into a ragged cough, and I gave him a sip from my canteen.

"But you couldn't control the machine," I said grimly.

The dying man reached out a trembling hand to grab Hobart by the shoulder. "Nobody can control the Great One!" he said with unexpected force. "It wouldn't accept any commands. The

AI . . . was left on, sentient and thinking . . . alone in the dark for centuries.

"It's insane," he exhaled in a ghostly whisper, and he slumped to the floor.

I cycled Hobart open and checked for a pulse with my fingertips pressed to his throat. There was none. "He's gone," I said, cycling Hobart closed again.

*Now what?*

"We go after it." I took a plasma pistol from the dead man and checked the synergy cell. Fully charged—he never got off a shot.

*How are we going to stop that thing? Got a pocket nuke you've been hiding all these years?*

"The bridge," I said, tightening the belt. "But only if we move fast."

There was a short pause. *Say, that just might work.*

But rushing outside, I found nothing in sight. The giant was gone.

*Radar is clear,* Hobart reported. *Scanning infrared . . . clear. Going to ultraviolet spectrum . . . Aha! Got him!*

On the main monitor, the soldierbot was a jot in the distance. The big machine was moving fast, and we rushed to stay close. The soldierbot paused at the old iron bridge to test the structure with a single leg, then another. It seemed unsure whether the bridge would hold its awesome weight. That was my plan: Let it get in the middle, then hit it with our missiles and send it tumbling into the ravine. Not a nuke, but it should work. Maybe.

*Now?* Hobart scrolled, his meters quivering with barely restrained eagerness.

"Not yet. It has to be on the bridge . . . oh, no."

As I watched, the machine withdrew from the ancient bridge and started along the ravine looking for another way across.

Frustrated, I clenched and unclenched my huge fists. There went our best chance for a fast kill. But I refused to admit defeat. My plan to help this valley had somehow unleashed the ultimate killing machine, and it was my responsibility to stop it.

"Launch our missiles!" I spat.

*If you say so.*

Flame washed around our boots, and Hobart shook as the four Amsterdam missiles lifted from our backpack to streak away, spiraling across the valley to strike the soldierbot dead on. The C19 warheads exploded with thunderous force.

However, as the smoke cleared, the mighty machine showed no visible damage.

Contemptuously, the soldierbot did not even bother to pause as it launched a full salvo of missiles, HE shells, plasma beams, and lasers back at us. Frantically, Hobart and I dived into the river for safety and went under just as the barrage arrived, the missiles and shells tearing apart the landscape, the gigawatt energy beams melting the rocky soil into steaming lava.

Calmly, the soldierbot continued on its way, still searching for a convenient path across the deep ravine.

*That was fun. What next, boy genius?*

"Okay, last try. Set up a radio link," I ordered brusquely as water flowed off us in sheets.

*And say what? "Please stop, or we won't like you anymore"?*

"Don't talk to him," I snapped, looking up into the sky. "Talk to the Seven Sisters, and pretend you're the soldierbot. Make 'em mad. Say things only another machine would understand. Challenge them to a fight. Act insane."

Hobart took a couple of seconds to set up the message, sending it out on the frequency that the soldierbot was using when targeting its weapons and—this was very important—bouncing the signal off the 'bot, so the Seven Sisters would think the message was coming from it instead of from Hobart.

*Okay, it's done,* Hobart scrolled, then paused. *Know what? I think they bought it.*

Scant seconds later, down from the heavens came three mauling power rays—only three, because the other satellites were out of range on the other side of the planet. They instantly zeroed in on the soldierbot. For a single moment, its force field held against the combined attack as it launched dozens of missiles skyward. Then the shield fell and the machine vanished in a blinding fireball.

Back in the river, Hobart and I rode out the firestorm. Time passed, and when the river stopped simmering, we dared to stand and risk a peek. We saw only a flat, desolate landscape of broken rocks with a steaming lake of molten lava at the center.

The trick had worked. The mad machine was no more.

*You are a clever person,* Hobart scrolled to me.

"Thanks," I panted. "You too, pal."

*Guess we should check on Iron Mike and company and see if they survived to go to jail.*

"Then we leave," I said, crestfallen. "I think we have seriously worn out our welcome here."

*Gee, you think so?*

"Aw, shuddup." I sighed and started walking. "I wish there was something we could do to make up for this colossal mess."

*Well,* Hobart scrolled slowly, his meters jiggling in the computer version of a chuckle, *maybe there is something we could do.* He started to scan his databases. . . .

A FEW MONTHS LATER, the townspeople of Battle Ground watched as Iron Mike and the rest of the chain gang—under the supervision of the sheriff—put the finishing touches on the village's new waterwheel. The plans they had received from the Gamma Knight had actually worked. The rushing stream of water from the smashed dam turned a large wheel studded with wooden paddles, which in turn rotated a long leather belt that operated a grinding stone to mill grain, and a big circular saw to cut wood.

It was a marvel of technology, the greatest gift the valley had ever received, and nobody even knew the name of their mysterious benefactor. May the Maker bless the stranger, whoever he was.

Sometimes, life was good.

## About the Author

*Bestselling SF author Nick Pollotta is a resident of Chicago and a lifelong gamer. Under the pseudonym Nick Smith, he sold several cartoons to* DRAGON® *magazine, created numerous computer games, edited comic books, and regularly performs his standup comedy act at SF and gaming conventions across the continent. His many novels include* Illegal Aliens *(with Phil Foglio),* Bureau 13, *and* Shadowboxer, *plus* Zero City *and* Leviathan, *both coming out this summer.*

A GAMMA WORLD ADVENTURE BY MIKE SELINKER

# SLASHBURN

**"Slashburn" is a one-on-one roleplaying adventure set in the ruins of Gamma World. One player takes the role of Jason Montgomery, the hero of "Power to the People." The other player becomes the Gamemaster, playing the powerarmor AI (H*O*B*A*R*T) and all of the characters encountered along the way.**

**To play this adventure, you'll need a copy of the ALTERNITY® Science Fiction Roleplaying Game rules. A free fast-play system is available for download at <www.wizards.com/alternity>. You can also use any version of the *ALTERNITY Science Fiction Adventure Game*, or the *ALTERNITY Player's Handbook* and *Gamemaster Guide*. If you want the full post-apocalyptic experience, you should get the *GAMMA WORLD Campaign Setting*, which tells all about the strange creatures and scorched earth of Gamma Terra. If you already play in Gamma World, you can use this adventure with heroes other than Jason.**

**When the Gamemaster is familiar with how to run ALTERNITY and both players have read "Power to the People," the hero player takes the Jason Montgomery hero sheet (opposite). The Gamemaster runs this adventure from now on, beginning with the encounter below.**

## The Free City of Hokween

*When the hero player is ready to begin, read the following:*

*For a respite from the wilds of Gamma Terra, you've come down the Long Road from Putrid Sound to the shores of the Great Western Ocean. North of here is the Limpik Peninsula, a mountainous area stretching 100 kilometers before reaching the One Deep Strait. As you settled in the Free City of Hokween, your exploits reached the attention of Queen Hokween herself.*

*The queen has given you a mission of peace. You are to head north from the Grand Junction, where the Long Road branches into Binary Road. This road hasn't been explored north of the ruined town of Hump-2-Lips, as that place is the reputed home of a kamodo, a fearsome thunder lizard that can crush anything in its path.*

*The one thing that is known about the mountains is that it is home to some dabbers, friendly raccoonlike creatures. Queen Hokween believes that trading with the dabbers is good for Hokween. You are to return when you've established links with the dabbers, and you will receive 5,000 gold coins for your troubles.*

*Escorted by the queen's advisors, you have arrived at Grand Junction. The advisors unveil what they call a "Supercar" (really an old-time Geo Metro convertible) filled with trade goods. The shiny blue Supercar looks to be a tight fit but a fast ride. What do you do?*

The advisors expect Jason to drive the convertible north on Binary Road. Crates of costume jewelry and PopRocks are strapped down behind the seat and in the space where the ragtop would go if it weren't shredded. It has a maximum speed of 80 kph in these mountains. And in powered armor, the driver is quite uncomfortable.

To start the car, he must make a Vehicle Operation—*land vehicles* skill check at a –2 step bonus. If he gets even an Ordinary success, it starts without problem. If not, it blows one of its three cylinders and grinds to a halt. Jason will need to make a Technical Science—*jury rig* skill check to start it again. He can try as many times as he likes, but each cylinder blown lowers the max speed by 30 kph. Obviously, if three cylinders go, the car won't.

Assuming Jason doesn't end up pulling the car, he's given a grand send-off.

## Binary Road

*Binary Road is a very rough ride, as blackberry bushes poke up through the pavement with alarming frequency. The overgrowth encroaches on the roadway, though there's still room to drive at a full clip. How fast are you going?*

Binary Road (U.S. 101) is uneven but relatively safe until Hump-2-Lips. Jason can drive at his top speed, but must make a Vehicle Operation—*land vehicles* skill check to avoid blowing a tire. If he does, he needs a Technical Science—*jury rig* skill check to change the tire.

Nothing of note happens on Binary Road unless you are playing with the *GAMMA WORLD Campaign Setting*. If so, you can roll an encounter from the Encounters in the West Washing table every 15 kilometers. Roll d6 and refer to the list of encounters below. Use the statistics in that book's Chapter 7: Creatures of Gamma Terra.

**ENCOUNTERS IN THE WEST WASHING**

1. **Three hawkoids.** The hawks terrify anyone they see, throwing bolas to entangle prey. They then levitate entangled victims, smashing them into the ground before swooping in.
2. **Blaash.** The gamma moth hungers, as it found its last meal unappetizing (see 3). It strafes heroes with radiation, waiting till the sickness overwhelms its prey.
3. **Blaash victim.** This android is only half here, as the blaash ate its legs and partially cocooned the surviving half. The android (1 wound left) uses its free arm to wave a busted laser pistol. After a few minutes, its body erupts with baby blaashes. This will kill the android. The babes can be killed easily.
4. **Abandoned ark camp.** This demolished tepee camp contained at least 100 wolf-men. A successful Investigate—*search* skill check will turn up a broadsword and a coonskin cap (anathema to any dabber).
5. **Mantid.** This hunter attacks as long as its armor stops major wounds, then springs off.
6. **Carrin and six blood birds.** The blood birds bathe heroes in radiation, then move off at the carrin's command. The leader taunts heroes, then demands weapons and, if dabbers are present, "two and a half of the raccoon-things." The carrin's telepathy helps it negotiate, and it attacks after bargaining concludes.

# JASON MONTGOMERY

## Male Pure Strain Human • 7th Level Free Agent

| | |
|---|---|
| STRENGTH | 9 |
| DEXTERITY | 10 |
| CONSTITUTION | 13 |
| INTELLIGENCE | 12 |
| WILL | 10 |
| PERSONALITY | 9 |

**▶ Durability**

STUN ○○○○○○○○○○○○○○○
MORTAL ○○○○○○○
WOUND ○○○○○○○○○○○○○○○

**▶ Skills**

| | |
|---|---|
| Armor Operation | 9/4/2 |
| *Powered armor* | 12/6/3 |
| Athletics | 9/4/2 |
| Melee Weapons | 9/4/2 |
| *Blade* | 10/5/2 |
| Unarmed Attack | 9/4/2* |
| Ranged Weapons | 10/5/2* |
| *Pistol* | 12/6/3* |
| Stealth | 10/5/2 |
| *Sneak* | 11/5/2 |
| Vehicle Operation | 10/5/2 |
| *Land vehicles* | 12/6/3 |
| *Water vehicles* | 11/5/2 |
| Stamina | 13/6/3 |
| Computer Science | 12/6/3* |
| Knowledge | 12/6/3* |
| *Ancient language* | 14/7/3* |
| *Ancient lore* | 14/7/3* |
| *Construction* | 14/7/3* |
| *First aid* | 13/6/3* |
| Technical Science | 12/6/3* |
| *Juryrig* | 14/7/3* |
| Tactics | 12/6/3* |
| *Football tactics* | 13/6/3* |
| Investigate | 10/5/2 |
| *Search* | 11/5/2 |
| Awareness | 10/5/2 |
| *Intuition* | 11/5/2 |
| *Perception* | 10/5/2 |
| Interaction | 9/4/2 |

**▶ Attacks**

Revolver, magnum 12/6/3
6/12/50 range, high impact damage: d6w/d6+1w/d6+2m, 6 bullet chamber

Bowie knife 10/5/2
light impact damage: d4+1w/d4+2w/d4+3w

Laser gauntlet 12/6/3
20/40/200 range, energy damage: d6–1w/d6+1w/d6+3w, 24 shot battery

Screamer cannon 10/5/2
40/80/400 range, energy damage: d6+3w/d6+4w/d6+6w, 2 sonic shells available

Flare gun 10/5/2
4/8/20 range, energy damage: d6s/d6–1w/d6w, 2 flares available

** Jason can use his armor's AI to gain a -2 step bonus to these skills.*

**▶ Defenses**

H*O*B*A*R*T armor: d6+2 (LI), d6+3 (HI), d6+1 (En)

**▶ Gear**

H*O*B*A*R*T armor (see sidebar), Bowie knife with 8-inch blade, Ruger Blackhawk BN34X .357 Magnum revolver, 100 rounds of ammunition, a dud grenade (for diversions), leather backpack, lantern, oil, matches, white chalk, bedroll, iron frying pan, flashlight (no batteries), flare gun, six paperback novels, Swiss Army knife (missing corkscrew), hand axe, rations, canteen, harmonica, spork, extra clothes, soap, razor, comb, toothbrush, leather pouch of minty leaves (deodorant), box of 9mm bullets, assorted tools for repairs, 100 gold coins.

## H*O*B*A*R*T

**H*O*B*A*R*T is a massive suit of smooth, gray duralloy armor with louvered joints, and assorted weaponry strapped to the outside. The suit's artificial intelligence has a soldier's mentality, but with a jarring sense of humor.**

**Hobart has Intelligence 13, Will 12, and Personality 13. Its working capabilities include a helmet-mounted screamer cannon, a laser gauntlet, a searchable encyclopedia program, and a smart trauma pack. Its nonworking capabilities include a broken force field belt and a rocket launcher backpack with no missiles. In case something goes awry, Hobart has spare energy cells, wiring, and fuses, as well as a reboot CD-ROM disk.**

**The armor provides solid defense against most attacks. If the armor is exposed to electrical attack, Jason must get a Good or Amazing success on an Armor Operation—*powered armor* skill check to keep the armor functioning.**

**When Hobart is active, Jason can forgo an action to gain a –2 step bonus to any Unarmed Attack, Computer Science, Knowledge, Ranged Weapons, Tactics, or Technical Science skill check. Hobart can also provide a vast database of Broadway show tunes.**

FRED FIELDS

▶ **DESCRIPTION:** Two meters tall, 25 years old, slim, muscular, short brown hair, black eyes. Wears jeans and a T-shirt when not in armor.

▶ **ATTRIBUTES:** Desires to help others and discover new things, is honorable, has a sense of humor, is optimistic but homesick for a time gone by.

▶ **BACKGROUND:** Jason is a construction worker from the time before the Cataclysm. While on a visit to a military base, Jason and his cousin fell victim to a radiation leak and dove into a cryogenic freezer unit to stay alive. Centuries later, he awoke alone when multi-headed humanoids called orlens broke open the base to steal the equipment, and kept him as a slave. Jason escaped one night, and found Hobart in the ruins of Seattle (now called Settle). His memory somewhat shaky, he now wanders the Pacific Northwest, hoping to find his lost cousin and help restore civilization to the days of old.

## Hump-2-Lips

*Read the following when Jason reaches the ghost town of Hump-2-Lips.*

*You've just passed a sign reading "DANGER HUMP-2-LIPS AHEAD." Ahead lies a ruined town of the ancients, assuredly Hump-2-Lips. The buildings have been smashed. Most troublingly, a massive lizard, easily 20 meters long, sleeps noisily across the road through town. This must be a kamodo, the most destructive beast in Gamma Terra. The sound of your vehicle hasn't caused it to stir—yet. How fast are you going?*

This "kamodo" is an illusion generated by a sentry of five dabbers posted to scare off the humans to the south. The illusion is in Jason's mind; if he thinks the situation implausible, he can make an Awareness—*intuition* skill check at a +1 step penalty to see through the beast. The dabbers can maintain the illusion for ten minutes per dabber. Hobart cannot perceive the kamodo at all, but won't report this until asked to do something to it.

Jason can go around the kamodo, but if the dabbers fear he will proceed through Hump-2-Lips, they will "awaken" the sleeping dragon. The kamodo illusion cannot harm anyone, but the dabbers can create the illusion of the kamodo smashing more of the town in fury and bearing down on the Supercar.

If Jason bears through the illusion and makes an Awareness—*perception* skill check, he can discover the dabbers. He must succeed in an encounter skill check (Interaction, for example) to persuade them to trust him; if he gives them anything shiny, he receives a –2 step bonus. If Jason befriends them, they tell him about Lake Quinault and Lake-Home to the north, where their main colony is located. They tell him to watch out for marauding tribes of arks. No dabber will accompany him.

If Jason attacks the dabbers, one throws a tear gas grenade to cover their escape. For 10 rounds, attacks and Awareness checks are at +2

step penalties. Jason must also make a Constitution feat check to avoid helplessness for 5 rounds. The dabbers flee into the forest, and Jason will never find them.

## Dabbers

**STR** 8 **INT** 10
**DEX** 12 **WIL** 11
**CON** 9 **PER** 9
**Durability:** 9/9/5 **Action check:** 14+/13/6/3
**Move:** sprint 20, run 12, walk 4
*** Actions:** 2 **Reaction score:** Ordinary/2

**Mutations**

Empathic Scan (INT, can know someone's emotions); Illusion Generation (PER, requires Awareness—*intuition* skill check at +1 step penalty to see through); Telekinetic Hand (WIL, allows manipulation of objects at 30 meters)

**Attacks**

| | | | |
|---|---|---|---|
| Dagger | 9/4/2 | d6–2w/d6w/d6+1w | LI/0 |
| Dabber bow | 14/7/3 | d6–2w/d6w/d6+2w | LI/0 |

**Defenses**

+1 resistance modifier vs. ranged attacks

**Skills**

Athletics [8]—*climb [9];* Melee [8]—*blade [9];* Manipulation [12]—*pickpocket [14];* Ranged [12]—*bow [14];* Stealth [12]—*hide [13], sneak [13];* Knowledge [10]; Awareness [11]—*intuition [12], perception [13];* Deception [9]; Interaction [9]—*bargain [10].*

## Speed Trap

After Jason leaves, the GM should once again ask how fast he's going. Tell the player the road twists and turns. At 10 kilometers north of Hump-2-Lips, the player must roll a Vehicle Operation—*land vehicles* skill check. Impose a penalty of one step for each 10 kph above 30.

***If the player rolls an Ordinary success or better:***
*As you round a sharp turn, you swerve to a stop just before a terrible speed trap. Between the trees, white webs block the road. Four Great Dane-sized spiders rush along the webs, sparks flashing from their sharp mandibles.*

***If the player fails the driving check:***
*As you bank a blind turn, you crash headlong into a nearly invisible barrier. You see the spark of electricity on sharp mandibles as four Great Dane-sized spiders swarm your vehicle.*

If the Supercar hit the webs, the player rolls a skill check identical to the previous one. On an Amazing success, Jason and the car are fine. Jason suffers d6 stun damage on a Good result, d6 wound damage on an Ordinary result, and 2d6 wound damage on a failure (before armor reduces the damage). Also on a failure, the car flips, and requires at least Good successes on both a Strength feat check and a Technical Science—*juryrig* skill check to start again. On a critical failure, the results of a failure happen, and Jason is thrown into the web, needing an Athletics skill check at a +2 step penalty to break free.

Meanwhile, the attercops move in to consume their prey. They use their electrical bites to cut through both Jason's armor and car. If an attercop hits with electricity, Jason must succeed on an Armor Operation—*powered armor* skill check to stop Hobart from shorting out. The car will automatically fail this check. Either device can be repaired with a Technical Science—*juryrig* skill check, at a +2 step penalty if both devices are offline.

The attercops skitter away if any one of them takes any amount of mortal damage. Once the webs are cleared, the journey can continue.

## Attercops

**STR** 12 **WIL** 12
**INT** 2 **CON** 10
**DEX** 10 **PER** 1
**Durability:** 10/10/5 **Action check:** 14+/13/6/3
**Move:** sprint 22, run 14, walk 4
*** Actions:** 2 **Reaction score:** Ordinary/2

**Mutations**

Electric Aura (WIL, causes electric shock with bite); Psychic Void (WIL, immune to mental attacks except illusions, for which it suffers a +3 step penalty); Web (DEX, creates webs, cannot be used in combat)

**Attacks**

| | | | |
|---|---|---|---|
| Bite* | 12/6/3 | d6w/d6+2w/d6+4w | LI/0 |

*For the first 2 rounds of combat, this bite also delivers the damage of the Electric Aura mutation:

| | | | |
|---|---|---|---|
| Electric Aura | 12/6/3 | d6–1s(Marginal)/d6+1s/d6+4s/d6w | En/0 |

**Defenses**

+1 resistance modifier vs. melee attacks
+1 WIL resistance modifier vs. encounter skills

**Skills**

Athletics [12]—*climb [18];* Stealth [10]—*hide [12], sneak [12];* Stamina [10]; Awareness [12]—*perception [13];* Resolve [12]—*mental [14].*

## Lake Quinault

*At Lake Quinault, the road to the left is impassable, but just to the right is the home of the dabbers.*

*As you drive east around a jarringly clear lake, you look down upon an idyllic wooden complex of buildings. On the lake are a small waterplane and a few paddleboats. Moving around the complex are dozens of dabbers.*

This is the Lake Quinault Lodge resort, which the dabbers call Lake-Home. It houses 200 dabbers, 160 of whom are present. Jason's arrival arouses the dabbers' curiosity. Assuming Jason isn't hostile, a dabber will call out "Friend freepockets!" (a signal that it is safe). Jason will be swarmed with meter-high raccoon men demanding "Whadja bring me?" as they appropriate everything they see. They pry mirrors off the Supercar, pocket the trade goods, and even dismantle parts of Hobart (who will protest, naturally). If Jason does not take exception, he'll find himself with only the armor on his back. This is the dabbers' way of establishing friendly relations, and they assume Jason will take whatever he wants from the lodge in recompense.

Lake-Home is composed of a large main building, a secondary lodge, and a boathouse. The large building has a vast central hall abutting a huge dining room and kitchen, a downstairs rec area filled with pinball machines and a drained pool, and a pair of two-story wings of hotel rooms. The smaller lodge contains unconnected condos. All of these locations, including the pool, are home to dabber families. The boathouse houses five canoes, two rowboats, three paddleboats, a functioning powerboat, and a small sailboat, plus there is a seaplane on the lake. The dabbers also have two working motorcycles with sidecars and a refurbished compact car sporting a powerful seaplane engine. Jason can drive any of these with the appropriate Vehicle Operation skill check, though he suffers a +2 step penalty to fly the seaplane. (The *Gamma World Campaign Setting* has details for these vehicles.)

The dabbers have no leader, but they do have a wizened goods assessor. Clyde will seize upon offers of friendship as a way to stave off the invading arks, telling of the wolf-men's brutal treatment of the peaceful natives and the forest. The dabbers and arks fight a small-scale guerrilla war for control of the forest. The mobile arks are masters

of ambush warfare, so many dabbers have been lost. Clyde suggests that, as a token of the new cooperation between Hokween and Lake-Home, Jason join a band of dabbers to chase the arks away from the seized ranger station of 'Oly Mountain, a spot that overlooks most of the peninsula. Jason can spend the night here if he likes.

If Jason agrees, he will be joined by ten so-tough-they're-adorable dabber commandos:

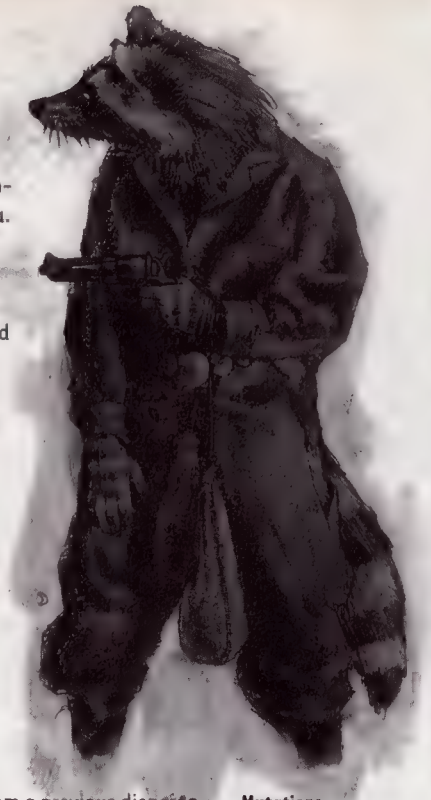
- **Rococo**, a no-nonsense warrior with fur shaved above his eyes and a mean-looking black autorifle with glow-in-the-dark skull decals (d6-1w/d6w/d6+1w). Rococo has 11 Strength and 14 Personality.
- **Chikker**, the best scout among the dabbers. A quiet and introverted sort, Chikker uses an Ancient cloak that allows –3 step bonuses on Stealth skill checks in natural settings, plus a silenced revolver (d6-2w/d6-1w/d6w).
- **Cleve**, the group showoff. Cleve carries two revolvers (as above) with extra bandoliers across his chest.
- **Ridley**, an alert and fidgety dabber carrying a revolver (as above) and a handaxe (d6-2w/d6w/d6+2w).
- **Bite-Eye**, who has a scar above his left eye from a previous disagreement, carries three tear gas grenades (see the Hump-2-Lips section) and a chain for close combat (d6+2s/d6w/d6+2w).
- **Widge**, who has a deep and penetrating stare and is even more curious than your average dabber. Widge uses a blowgun (1w/1w/1w, Stamina skill check or paralyzed for d6 rounds).
- **Sarine**, a reluctant combatant who soliloquizes about peace even in these times. He sports a $CO_2$ extinguisher upside-down on his back (Stamina skill check or d6+6s and +4 step penalty to actions for d6 rounds).
- **Ticktick**, who complains about the bugs and vermin in the wilderness, carries a can of chemical Mace (same as Sarine's extinguisher) as well as a lasso (Strength feat check or victim is unable to move).
- **Presto and Shill**, brothers who extol each other's virtues while denying each other's praise. Both carry muskets (+2 step penalty to use, d6+1w/d6+3w/d6+6w).

The commandos generally will follow Jason's leadership, though they all look to Rococo for cues. They will ride the motorcycles and sidecars alongside the Supercar, assuming it still functions. If Jason needed anything repaired, it will be by the time he leaves Lake-Home—assuming he trades to get his stuff back.

## Climbing 'Oly Mountain

The Supercar's maximum speed up the mountain in kph is 10 times the number of cylinders it has (maximum of 30 kph). The jacked compact and the cycles can go about 60 kph up the mountain. You can stage encounters from the table on page 78 if you like. Read the following when Jason nears the base of 'Oly Mountain.

*The grade of the road gets much steeper as you ascend to 'Oly Mountain. The growth around the roadway is wild and densely packed, as if little has disturbed the forest in decades. The dabbers warn that no matter what trail you take, any ark with a pair of binoculars will see your vehicles coming. They recommend you leave your vehicles behind if you don't want to be seen.*



RAVEN MIMURA

If Jason and the dabbers disembark, Jason must make a Stealth—*sneak* skill check. If successful, the group avoids an ambush. Otherwise (or if they continue in the vehicles), an ark ambush occurs.

If the ambush occurs, eight arks have piled leaves, sticks, and anything else they could find onto the road. If the group stops before the barricade, the arks lob three tear gas grenades into the area (see the Hump-2-Lips section). If instead the vehicles ram the barricade, the arks will leap onto the vehicles. Either way, they then attack with longbows and axes, neither likely to hurt Jason through his armor. If more than four arks are incapacitated, the rest will flee.

The undergrowth has not seen a forest fire in decades—any fire could start a blaze. The dabbers know this, and will stomp out any such fire.

## Arks

| | | | |
|---|---|---|---|
| **STR** | 12 | **INT** | 9 |
| **DEX** | 7 | **WIL** | 10 |
| **CON** | 12 | **PER** | 9 |

**Durability:** 12/12/6 **Action check:** 12+/11/5/2
**Move:** sprint 24, run 16, walk 6 *** Actions:** 2
**Reaction score:** Ordinary/2

**Mutations**
Life Leech (WIL, drains d4s from all within 10 meters and adds the points to the ark's stun durability up to maximum of 36 stun), Telekinesis (WIL, moves objects up to 100 kg); Severe Phobia of large birds

**Attacks**

| | | | |
|---|---|---|---|
| Bite | 13/6/3 | d6–1w/d6w/d6+2w | LI/0 |
| Great axe | 14/7/3 | d6+2w/d6+3w/d6+5w | LI/0 |
| Spear | 14/7/3 | d6w/d6+1w/d6+3w | LI/0 |
| Longbow | 9/4/2 | d6w/d6+1w/d6+3w | LI/0 |

**Defenses**
+1 resistance modifier vs. melee attacks
Thick fur: d6–3 (LI), d6–4 (HI), d6–4 (En)
Leather armor and shield: d6 (LI), d6–3 (HI), d6–4 (En)

**Skills**
Armor Op [12]–*combat [13];* Athletics [12]–*throw [14];* Melee [12]–*blade [14];* Unarmed [12]–*brawl [13];* Primitive [7]–*bow [9];* Stamina [12]–*endurance [13];* Knowledge [9]; Tactics [9]; Awareness [10]–*perception [11];* Investigate [10]–*track [12];* Interaction [9]–*intimidate [10].*

## Ark Rangers

Regardless how they approach, the group will soon find one of the six ark fire teams around the mountain. Here, Jason will discover the beginnings of the arks' plans to burn down the forest and wipe out the dabbers.

*Through the trees, you see a white box set into the ground. A thick wire runs up the side of the mountain. Two hundred meters up the mountain, some creatures are moving.*

Jason's group has discovered a box of plastique, a substance the dabbers have never seen but Jason knows well (see "Power to the People" for details). This is a trigger box, and the four arks up the mountain plan to trigger the box with a laser rifle. This laser gun cannot hurt anyone except on an Amazing hit, when it will blind the target for d6 hours. If anyone tugs the wire, the arks will know the box is being moved and will try to trigger the explosion. Of course, since the box is a new device to the dabbers, they want it.

Obstructing the box blocks the laser from triggering it. The arks will come off the rise to deter interfering intruders. The ark with the rifle will trigger the box even if some of his colleagues are near it. Everyone within 10 meters of the exploding box must make an Athletics skill check. Failure means the individual suffers 2d6+4w in damage. Anyone holding the box at the time automatically fails the skill check. After the explosion, the oxygen depletion causes everyone who took damage to make a Stamina skill check or fall unconscious for d6-1 hours.

If an explosion occurs, a large fire follows. Regardless, this occurs in five other trigger sites within an hour.

## Fire on 'Oly Mountain

In this final showdown, Jason will see various fire-control devices used instead to start fires. The primitive arks are led by a rare "half-ark," an offspring between ark and man. This insane half-ark, Riff, has command of ancient tech, and will use this knowledge to cause a cataclysm if not halted.

His plan takes advantage of the lack of forest fires in the area. The triggered plastique explosions (normally used to set break fires) will start the inferno. As it gets going, Riff will fly a helicopter ahead of the conflagration. He will drop packets of napalm jelly (again normally used to smother fires) to set an unstoppable burn. It is up to Jason and the commandos to stop this holocaust.

*Read this when Jason and the dabbers ascend to the ranger station.*

> *Dozens of arks patrol the ranger station on 'Oly Mountain. A two-story wooden building stands next to a water tower and a watchtower, this also manned by arks on lookout. A helicopter is being prepped by arks gingerly carrying crates to the copter. Some arks seem to wear dabber-skin headbands.*

There are 40 arks at the ranger station. All follow Riff blindly. They are loading the helicopter's bomb bay with crates of Ping Pong balls. Each ball contains a pair of chemicals which, when combined (usually after being dropped into a fire), explode and suck all the air away; this requires a successful Stamina skill check or it causes d6+6s and a +4 step penalty to actions for d6 rounds. The arks are not averse to throwing these at invaders.

Riff, a sophisticated bully, is in the copter. He wears a suit of enviro-armor with a flamethrower attached to his back (see his statistics in the next column). He will direct his arks to fight intruders. At the first sign of trouble, he takes a round to start the helicopter and take off.

If airborne, Riff can use the Ping Pong balls and napalm packets as weapons. The latter cause d6+6w damage to anyone hit every round for d6+2 rounds. They also require the Stamina skill check described above. The helicopter subtracts 10 wounds from any attack on those inside, unless the attacker is also in the copter. If the helicopter itself is targeted, an Amazing hit that scores at least 10 wounds will cause it to explode, and a Good hit for 10+ wounds will cause it to crash. Otherwise, it will be unharmed.

The arks are terrified of the copter, and they will be even more terrified if Riff dies. Even if they face a numerically inferior foe, they will scatter if possible and surrender if not.

If the heroes succeed on 'Oly Mountain within an hour after the "Ark Rangers" encounter, they have no further challenges. But if an hour passes, the other five ark parties detonate their explosions. If Jason makes a Vehicle Operation skill check at a +2 step penalty, he can fly the copter and loose the Ping Pong balls and napalm to quell blazes. Or he can *jury-rig* the water tower to the copter for a similar effect. Any reasonable attempt to quench the fire should succeed.

## Riff

The half-ark Riff has the statistics of the other arks, with the exception of having a 13 Intelligence. This gives him the following additional or altered skills: Armor Operation [12]—*powered armor [13];* Vehicle Operation [7]—*air vehicles [13], land vehicles [13];* Knowledge [13]; Tactics [13]; Technical Science [13]—*artifact knowledge [15];* Interaction [9]—*intimidate [16].* He wears enviro-armor (d6-1 (LI), d6 (HI), d6+1 (En) and makes wearer immune to heat and cold) and uses a flamethrower (d6w/d6+3w/d6+5w and ignites fires).

RAVEN MIMURA

## Aftermath

If Jason and the dabbers win at 'Oly Mountain, they are welcomed back at Lake-Home as heroes. Trade begins between the dabbers and the citizens of Hokween, which will certainly be more profitable for the dabbers.

Presuming Jason is the only hero playing, he gains the Vehicle Operation—*air vehicles* skill at a score similar to his other Vehicle Operation scores. He receives the promised 5,000 gold coins and the Supercar, if it still runs.

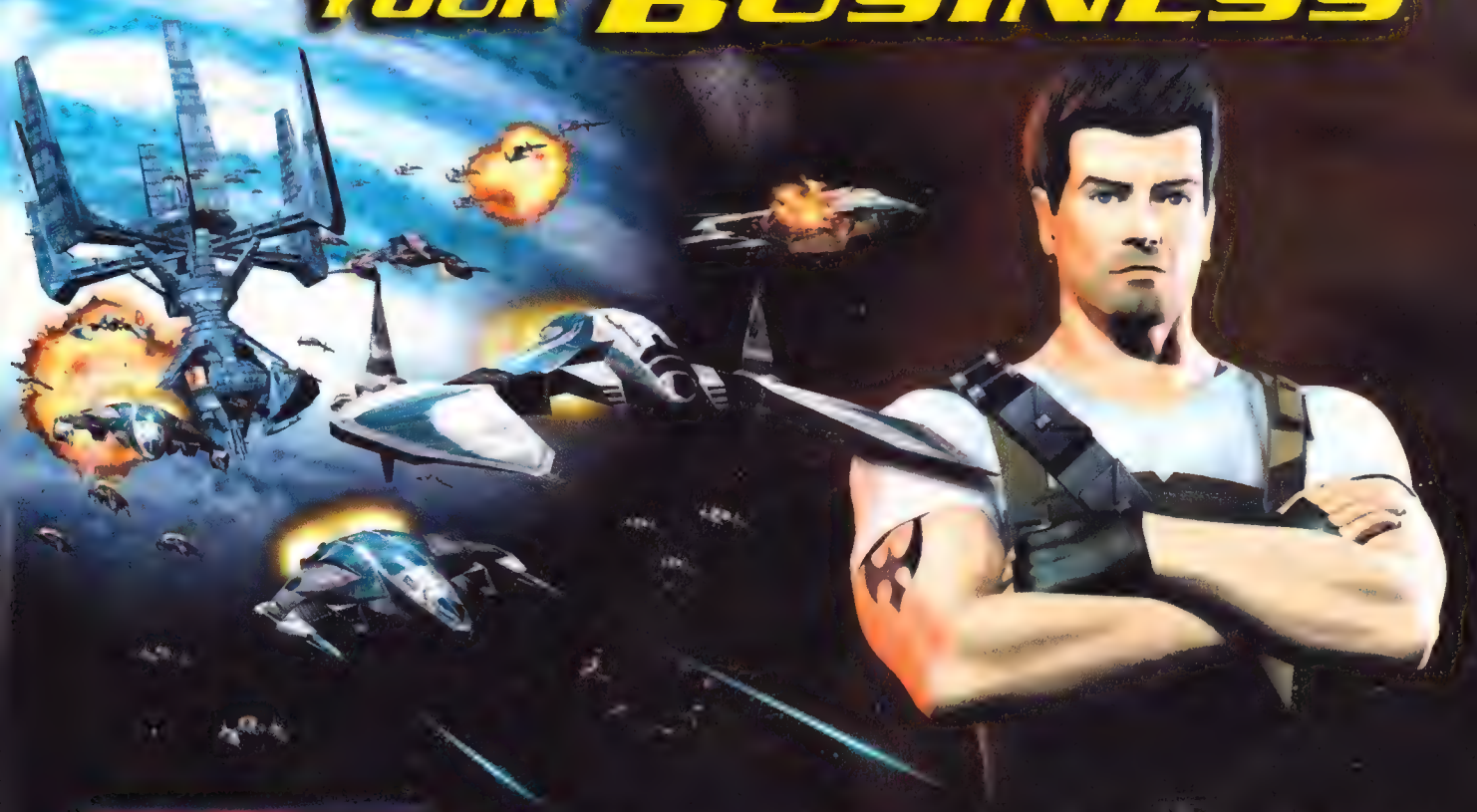
If you're playing with other GAMMA WORLD heroes, you should give 3 achievement points to each hero. They are welcome to use Hokween as a base for further exploration of the wilds of the Limpik Peninsula.

### About the author

*Mike Selinker is Wizards of the Coast's creative director for licensed and acquisition roleplaying games. He has designed the* MARVEL SUPER HEROES Adventure Game, Diablo II: The Awakening, *the family game* AlphaBlitz, The Reed Richards Guide to Everything, *and dozens of other card game and roleplaying game products. His puzzles appear in most issues of* Games *magazine and* Dragon *magazine, as well as other top puzzle magazines and newspapers. His latest game design project is the upcoming* Harry Potter Adventure Game.

*Given that he'd already done so in his home campaign two decades ago, Mike was proud to help blow up his hometown of Seattle for Wizards' latest incarnation of* GAMMA WORLD.

# DANGER IS YOUR BUSINESS



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*A column designed to acquaint the ordinary person with Sciense and other stuff that's really hard to understand.*

# ASK DR. SCIENSE™. . .

**July 1999** *R. D. of Punta Gorda, Florida, asks:*
**Dr. Sciense, I'm fascinated by the recent discovery that giant tube worms at the bottom of the sea have incredible life spans. Can you tell me more about this?**
Dear R. D.: I'm not fascinated at all, frankly, but if you're into worms, great. The creatures you're talking about were studied in the Gulf of Mexico at a depth of around 1,700 feet. They're tube worms is what they are, invertebrates who live in enormous clusters on the ocean floor, and subsist entirely on a diet of chemicals that leak up from fissures and cracks. They can be as big as ten feet long, and live up to 250 years.

A Sciense colleague of mine lived in much the same manner for quite a while. A little over six feet long, he had no discernible backbone, stayed in the tub all the time, never moved, and subsisted entirely on a chemical diet. We finally encouraged him to straighten out, and we think he'll be fine.

If you have a colleague who lives like a tube worm, you might pass the word along: *This is no way to live 250 years.*

**April 1965** *T. M. of Poeso Alegro, Brazil, asks:*
**Dr. Sciense, when I wake up in the morning, I have "sand" in my eyes. That's what my mother used to call it, anyway. Can you tell me what it really is?**
Dear. T. M.: That stuff in your eyes in the morning is dried mucus. The reason it's called "sand," is that no kid wants to hear Mom say, "Go to sleep, dear, the Mucus Man's coming. . . ."

**February 2000** *T. W. of Spearfish, South Dakota, would like an answer to this question:*
**Dr. Sciense, I understand that scientists have been able to recreate a kind of primordial "soup" in the laboratory. Would you give me some additional information on this subject?**
Dear T. W.: I will if you'll tell me how a place in South Dakota got a name like "Spearfish." Anyway, in answer to your question: What this is all about, is that physicists have created something that existed the small part of a second after the Big Bang. There was a lot of this stuff around at the time, but it turned into particles before you could say "Max Planck." This is important if you're in the physics trade, because it makes a theory come true, and Sciense guys are big on that.

See, quarks and gluons make neutrons and protons, and it's hard to break this mess loose. You can beat on these babies all day, forget it. Nothing's about to give way. What scientists have done is heat everything up so the gluons and quarks kind of drop out on their own.

The trouble with this new primordial soup, is most people put in too many gluons and not enough quarks. A little salt helps, a little oregano. But it's sure not the way it used to be.

**April 1955** *T. O. of Dalwallinu, Australia, would like an answer to this intriguing question:*
**Dr. Sciense, I never imagined there are so many things in the world that people are afraid of. There seem to be dozens of them. Could you list a few?**

ILLUSTRATION BY STAN SHAW

Dear T. O.: Dozens doesn't even come close. I think the type of fear you're referring to is a "phobia." A phobia is an irrational fear or dread of a particular object, person, whatever. As you requested, here are a few of the hundreds that exist—many of them rather unusual, but all of them real:

1. *pogonophobia*
2. *eosophobia*
3. *pteronophobia*
4. *aulophobia*
5. *barophobia*
6. *gametophobia*
7. *odontophobia*
8. *onomotaphobia*
9. *linonophobia*
10. *chionophobia*
11. *auprophobia*
12. *ursaphobia*
13. *erythrophobia*
14. *pantophobia*

So now I suppose you want to know what these phobias are all about? Well, you'll just have to wait until the end of this column, where you will find the definitions upside down. (Never let it be said that Dr. Sciense does not make you work for your knowledge!)

Next issue, I'm answering a reader's question about manias. Like *politicomania (politics), Gorbymania (Mikhail S. Gorbachev),* and *empleomania* (*employment*—one of Dr. Sciense's continuing problems.)

**March 1944** *L. V. of Riddle, Oregon, asks:*
**Dr. Sciense, can you give me some more information on the eel-like fish known as the lamprey?**
Dear L. V.: I get it, you're in with this R. D. of Punta Gorda, Florida, right? What do you people do, write each other disgusting stuff on your PCs? Okay, I know what you want: Lampreys are awful, snaky-looking fish with suctorial mouths. They're like sharks—they don't have any bones, they only have cartilage.

And both you and R. D. will get off on this one: Legend says Henry I died from stuffing himself with lampreys. Hey, yum—run out for a McLamprey right now.

**July 1988** *O. Z. of Owasso, Oklahoma, would like an intelligent answer to this question:*
**Dr. Sciense, I read recently that someone made disparaging comments about our galaxy? What's behind this?**

Dear O. Z.: It's been assumed that the black hole at the center of our galaxy should be aglow with X-rays as it gobbles up super-hot gas into its gravity trap. One particular scientist says the Chandra observatory proves our black hole is "really puny"—apparently not impressive at all.

Which makes me feel lousy, you know? I thought we had a pretty classy neighborhood here. Now I just want to get in the car and drive. . . .

**October 1998** *L. C. of Lubsco, Poland, asks:*
**Dr. Sciense, I read an article that stated jellyfish and monkey genes might be used in a new, revolutionary technique. I would appreciate more information on this.**
Dear L. C.: Here's what the Sciense guys are up to here. They insert jellyfish genes into the embryos of monkeys. They feel this will be helpful in learning ways to fight diseases in human beings. The process is too complex to go into here, but there's apparently something to it. One experiment resulted in green-glowing monkey embryos, and, of course, we're all mighty pleased about that.

**January 2000** *L. E. of Boonville, New York, would like a meaningful answer to this question:*
**Dr. Sciense, I've always heard that oil comes from dead dinosaurs. How does this work, anyhow?**
Dear L. E.: Actually, it doesn't. There used to be a lot of dinosaurs around, but not nearly enough to fill up our tanks. Coal comes from ancient swamps full of plants. Oil is more complicated than that. You've got to have microorganisms that fell (or were pushed) into silty stuff in a yucky lagoon. Then, they've got to cook under pressure at about 150 degrees.

The pressure's what does it. If you're into making oil, allow for a really long wait. Go to a movie, hang around the mall. And whatever you do, *do not* let the temperature rise another fifty degrees. If you do, you'll get gas. Everyone starts looking at you, and you've got to say something dumb, like, "Not me, man, I was just drilling for oil."

Right. Who's going to believe that?

**September 1988** *E. Z. of Swift Current, Saskatchewan, Canada, hopes for a reasonable answer to this question:*
**Dr. Sciense, is it true that scientists have developed a method of slowing down plant growth? Is there some benefit to this?**
Dear E. Z.: Here we go with genes again. Dr. Sciense has mixed emotions about playing with genes of any sort, and that includes plants. Yes, scientists are indeed learning to stunt the growth of plants. We now have smaller versions of a great many species, which is fine for dwarf zinnias, dwarf daisies, and so on.

What I think is the golfers and lawn people are behind all this. Word is, before long we'll have lawns and golf courses that need mowing only a couple of times a year. Okay, fine. But as I said, Dr. Sciense has problems with genes. There's already widespread concern about human genetic engineering. The experts promise "everything's all right," but I don't know that, do you?

What happens when "dwarf" plants and grasses cross-pollinate with innocent bystander plants? I'm not sure tourists are going to knock themselves out over giant dwarf sequoias, now an incredible three feet high. And we'll be stumbling over those pesky oaks and elms that spring up through our new grass.

We'll have to pull up those suckers by hand, because all the lawn mower people will be out of business. I hate to say this about people of the Sciense persuasion, because I'm one too. But I'm not sure we're on the right track here. We don't need to make everything small. A lot of us like things big.

ANSWERS TO DR. SCIENSE'S PHOBIA QUIZ

1. fear of beards
2. fear of down
3. fear of feathers
4. fear of flutes
5. fear of gravity
6. fear of marriage
7. fear of teeth
8. fear of names
9. fear of string
10. fear of snow
11. fear of gold
12. fear of bears
13. fear of blushing
14. fear of everything

*All questions appearing in* ASK DR. SCIENSE *have been adapted from questions sent in by readers to* AMAZING Stories *over the years, or have been sent to Dr. Sciense by bill collectors and other mean-spirited persons.*

*We welcome your questions for this column. But please do not address your questions to Dr. Sciense himself. Dr. Sciense knows better than to open his own mail. Address your questions to Neal Barrett, Jr., Dr. Sciense's friend, at* AMAZING Stories, *P.O. Box 707, Renton WA 98057-0707. Mr. Barrett will see to it that your questions are slipped under Dr. Sciense's door.*

**Silver Screen**
by cory herndon

# Titan A.E.

## A New Standard for Animated SF

### Dateline: May 19, 1999.

I SAW THE EARTH BLOW UP.

I'd snagged the absolute *last* seat in the theater for the 10 P.M. showing of *The Phantom Menace*. The previews began with a mandatory three-movie preview for which 20th Century Fox undoubtedly had paid George Lucas millions. By far the most impressive (and appropriate) of the previews was for an animated SF film I'd never heard of, *Titan A. E.*

As a Matt Damon voiceover told of the alien attack that wiped out humanity's homeworld, swarms of wasplike CGI starfighters swept through our solar system, administering a fiery fatal blow to the third planet from the sun. The crowd cheered as a gorgeous computer-animated starship filled the screen like the steampunk lovechild of the Mondoshawan ship from *The Fifth Element* and the *Cygnus* from *The Black Hole*—whipped into an eye-candy frenzy that seemed curiously absent during the *Anna & the King* preview. "Summer 2000," promised the preview. This was going to be a long wait.

### Actors After Earth

**Matt Damon** as **Cale**, teenage hope of all mankind.

**Drew Barrymore** as the too-cute starship pilot **Akima.**

**Bill Pullman** as the rakish **Captain Joe Korso.**

**Nathan Lane** as the alien **Preed.**

**Janeane Garofalo** as the canine **Stith.** *Woof.*

**John Leguizamo** as **Gune.**

*(Note the resemblance to Space Ghost's nemesis, Zorak!)*

### Flash of the Titan

The reason I'd never heard of *Titan A. E.* was that the title was brand-new. Until recently this innovative cartoon—one of Fox's summer 2000 "tentpole" films along with *X-Men*—had been going by the moniker *Planet Ice*. The production was announced in late 1997 and had once been slated to open around the same time as *Star Wars: Episode I*. It appears that the studio was wise to give the filmmakers the extra time.

As you read this, *Titan A. E.* is in its first weeks of release. Judging from the full-length trailer (the best source of footage at the time of this writing), *Titan A. E.* shows the potential to be that rare animated feature that crosses over to the non-kiddie demographic.

*Planet Ice*'s original director was Art Vitello, a veteran of Saturday morning animated fare such as *The Real Ghostbusters, Tiny Toons, G. I. Joe,* and *The Tick* (*Tick* creator Ben Edlund also cowrote the film). Vitello was soon replaced by codirectors, Don Bluth and Gary Goldman. Bluth and Goldman bring a wealth of theatrical animated experience—both worked on the groundbreaking *The Secret of NIMH, The Land Before Time,* and *Anastasia*—but the team is new to science fiction adventure.

### What Is the Titan, Anyway?

*(Caution: Spoilers Ahead!)*

*Titan A. E.* is your standard mythic hero tale, the story of a young human refugee named Cale (Matt Damon) living after the year 3028, when the remnants of humanity have scattered through space after the alien Drej destroy Earth. But Cale is a very special refugee who must follow his father's dream and save mankind from becoming a memory.

It seems that somehow Cale's father, a brilliant scientist, saw the end coming and created a ship capable of making a new homeworld for humans. Cale's father put a map to this lost "earthship"—*Titan*—in Cale's hand, so he must team up with human Captain Joe Korso (*Spaceballs* and *Independence Day* veteran Bill Pullman) and his alien/human crew (which includes pilot Akima, voiced by Drew Barrymore) to locate this treasure before the Drej.

*This reporter, for one, will be very surprised if our heroes fail.*

### Familiar New Horizons

Bluth spoke about the film—renamed *Titan A. E.* after the ship that holds the survivors of planet Earth—at the 1999 San Diego Comic Con. "This particular movie has been fun, really fun, for me because I've never really gotten to build a science fiction film. With animation, one of the things you try to do is convince the audience that your characters have weight and that gravity is there holding them down. Out there in space there's no gravity. So this is the one case where we said, 'Animation rules? Let's park them at the door because everybody's going to float a little bit.' So we've had to abandon some of the thoughts that we'd always had about animation."

While the film might represent a departure from animation norms, its subject matter is something SF fans have seen before, on everything from *Star Trek: Voyager* to *Lost in Space*. "What if you lost everything you had and you don't have any hope?" Bluth described it. "The planet is blown up and a few survivors get out there and they just sort of drift about on little colonies. They glue their spaceships together so they can be a little community. And there's no way that they can go home. So all the things that we know are really not there. I thought, 'Wow, that's a really neat concept.' You can tell that idea in just a moment."

One of the first things the directors of *Anastasia* abandoned was the idea of doing the entire picture in CGI (a la *Final Fantasy,* due out in 2001). Instead they decided to blend CGI and cel animation. Humans and friendly aliens are rendered traditionally, while starships and

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enemy aliens could easily have been pulled from the computers of *Babylon 5*'s animators. Indeed, the creators seem bent on using animation to create images that would be mind-numbingly expensive in a live-action picture.

**State of the Art**

(Left) The Drej begin their attack on the temple ruins on the dangerous planet Sesharrim, while (below) Cale, Korso, and a Gaoul alien fight back.

## The Face of Evil Is...Blue

Opposing Cale's desperate band of human survivors are the Drej, a hive-minded energy species. In addition to wiping out all life on Earth, the Drej are bent on destroying all remaining humans; the survivors—Cale (Damon), Captain Korso (Bill Pullman), Akima (Drew Barrymore), and others—must race them to the *Titan*. These aliens, along with the starship designs and the film's epic scale, show that the production designers wear their influences firmly on their sleeves: The creatures resemble a mix of the Shadows of *Babylon 5*, the monster from *Predator*, and Sigourney Weaver's least favorite xenomorphs.

Other artists working on the picture include concept artist Ron Cobb—a veteran of the first two *Alien* movies, *Raiders of the Lost Ark*, *Back to the Future*, and *Total Recall*—and storyboard artist Henry Tucker, also a graduate of *The Tick*. The art direction draws on all of these influences, then throws in a healthy dollop of Jules Verne for good measure.

## Kid Stuff?

Before the release of *Star Wars* and all the genre fare that followed, it may have seemed strange to pitch a cartoon—no matter how great the special effects—to an older audience. Old Warner Bros. cartoons in which Bugs Bunny saved Earth from Marvin the Martian may have been aimed at movie going adults, but the comedic aspect guaranteed kiddie appeal, too. Max Fleischer's *Superman* shorts somewhat qualified as adult-oriented, but were still based on a comic book. In the U.S., animated SF was pretty much limited to the sugar-cereal set.

But *Titan A. E.*, which bears a somewhat unusual (for an animated film) PG rating, is aimed more at young adults and teens than young kids. These folks were raised not only on *Star Wars*, *Battlestar Galactica*, and *Star Trek*, but also on *Scooby Doo* and *Speed Buggy*. Back in the seventies, Hanna-Barbera—producers of prime-time animated genre sitcoms *The Jetsons* and *The Flintstones*—seemed to have a stranglehold on Saturday mornings, and we kids didn't realize the substandard animation to which we were being subjected. Still, what shows like *Space Ghost*, *The Herculoids*, *The Superfriends*, and *Thundarr the Barbarian* lacked in frame rate, they usually made up for in flashy design, goofy sidekicks, and outrageous story lines. And, of course, the Ghost himself has returned—in a way—through the Cartoon Network's *Space Ghost Coast-to-Coast* and *Cartoon Planet*.

## Our Star Blazers

While Americans relegated animation to the children's hour, Japanese anime had long been enjoyed by all age groups. The art form has long since diversified to include all kinds of subject matter—everything from Pokémon to giant *mecha* (your basic big-ass robots) to spacegoing trains to alien love slaves. In fact, *Titan A. E.* owes as much to groundbreaking Japanese films such as *Ghost in the Shell* and *Akira* as it does to *Star Wars* or *The Jetsons*.

Anime first hit the United States on the small screen in the mid-seventies, with painfully dubbed "kiddie" fare such as *Speed Racer* (known in Japan as *Mach Go Go*) that soon fell to the dominance of giant robot shows such as *Gigantor*. But the one that many Gen X-ers remember as their first serious dose of anime was *Star Blazers*.

*Star Blazers* was the syndicated-in-America version of *Space Battleship Yamato*. This successful Japanese series

### These Are the Voyages?

Much of *Titan A. E.*'s potential audience has fond memories of another anomalous "grown-up" entry into this "kiddie field"—the animated *Star Trek* series. Produced by Paramount and Filmation, this series featured typically inexpensive animation but also boasted the voice talents of nearly the entire cast (minus Walter Koenig) plus writers and directors from the live-action series.

Scripts were far above the contemporary Saturday morning fare, and one—"Yesteryear," written by longtime fan favorite D. C. Fontana—has even become semicanonical in the *Trek* universe. Animated *Trek* remains popular with fans to this day, although campy elements such as the "new" theme song and a starship *Enterprise* that didn't cruise so much as diagonally slide (even at warp speed) still get unintended laughs.

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## "In The Year 1994, From Out of Space Comes a Runaway Planet . . ."

*It can be tricky keeping track of those classic characters from the animation heyday of the seventies and eighties. Here's a handy field guide.*

| | Space Ghost | Thundarr | Godzilla | Zandor (The Herculoids) | Birdman | The Superfriends |
|---|---|---|---|---|---|---|
| Distinctive Features | Stylish black cowl, no pupils, spotless white tights | Short-short one-piece barbarian fur, same hairstyle as Zandor | Thirty stories high, breathes fire, head in sky | Short-short one-piece barbarian Speedos, tiara | Stylish beaked cowl, no pupils, wings | Superman, Batman, Robin, Wonder Woman, Aquaman |
| Hung Out With | Jan, Jace, and Blip | Princess Ariel and Ookla the Mok | Godzooky, Pete, Captain Majors, Brock, and Aunt Quinn | Tara, Dorno, Zok, Igoo, Tundro, Space Ghost, the Monkey People | Avenger the giant eagle and covert operative Falcon 7 | Zan, Jayna, and Gleek (no relation to Blip, Gloop, or Gleep) |
| Nifty Gadgets and/or Weaponry | Three words: Mighty power bands! | Thundarr's lightsa—ah, er, "sun sword" | Flame breath (see features), laser beam eyes, and the "Godzilla Signal" | Slingshots and exploding "energy rocks," Gloop and Gleep | Solar-powered heat rays and force beams | X-ray vision, batarang, magic lasso, fish telepathy |
| Catchphrase(s) | *"SPAAAAAAAACE GHOOOOOST!"* | "Ariel! Ookla! Ride!" | "Graaaaaaw!" "Can't...reach... Godzilla signa..." | "Zok! Igoo! Tundro! Gloop and Gleep!" | "BIIIIRDMAAAAAAN!" | "Up, up and away!" "This looks like a job for Superman!" "Shape of: an ice rocket!" |

followed the adventures of the crew of the battleship *Yamato* (raised from the bottom of the ocean after World War II and outfitted for deep space travel—seriously) as they searched for a cure to an alien plague scheduled to wipe out all life on Earth within a year. The plot remained more or less the same for the American version, although the battleship was renamed *Argo*—eliminating the tie-in to the historical *Yamato*, which no doubt would confuse lazy, stupid American children.

*Star Blazers* was unlike anything I or my pals had seen. The visuals were stunning, the stories featured an overarcing plot, and people *died*, for crying out loud! Even the theme song ("We're off, to outer space/We're leaving Mother Earth. . .") was catchy and different. And we clamored for more. After all this time, is *Titan A. E.* what we were clamoring for?

### Titan-ic Chances

It just might be. Never before has an American film blended CGI animation and traditional cel animation in quite this way. Indeed, this is just one reason *Titan* invites comparison to last year's brilliant (and underseen) *The Iron Giant*.

Fox executives may be thinking a lot about *The Iron Giant*, too. That movie, which was lauded by critics and anyone who managed to catch it before it left theaters, nevertheless went unseen by the vast moviegoing public. It seems that Warner Bros. had no idea how to market an animated feature without musical numbers, resulting in an ad campaign that repelled potential viewers. Can another song-free SF picture, a mere year later, hope to avoid the same pitfalls?

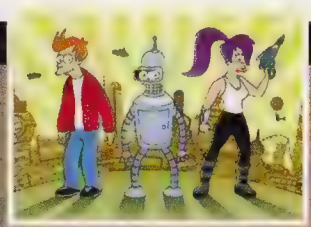
Upon closer examination, however, *The Iron Giant* and *Titan* are quite different. Where *Giant* featured a *Frankenstein*-inspired story of a misunderstood monster, *Titan* is a rollicking space adventure, a quest movie with a crowd-pleasing, save-the-universe angle. This should help the movie cross over for audiences so starved for science fiction they're going to see *Mission to Mars*.

### Modern Marvels

The ultimate fate of *Titan A. E.* rests on the quality of the film. Bluth and Goldman have proven their abilities in the past with movies such as *The Secret of NIMH* and *Anastasia*, but they also gave us *A Troll in Central Park* and helped spawn the endless parade of straight-to-video *Land Before Time* movies. The filmmakers have an audience with expectations of quality, an audience that has graduated from *The Jetsons* to *Futurama*, from *The Superfriends* to *Batman Beyond*. Whether *Titan* makes it or not, new films such as *Dinosaur* and *Final Fantasy* (which ditches cel animation entirely in favor of CGI) ought to prove once and for all that science fiction cartoons are sticking around past noon on Saturday.

### Foxed-Up Future

By wacky coincidence the same company, 20th Century Fox, oversees both *Futurama* and *Titan A. E.* This reporter was lucky enough to come across a secret internal memo designed to clear up some confusion among executives.



| Titan A. E. | Futurama |
|---|---|
| ▶*Titan A. E.* is a movie. | ▶Futurama is a half-hour weekly TV program. |
| ▶Most humans are dead; survivors need spare change badly | ▶Human corporations pretty much run the galaxy. |
| ▶Evil aliens have eyes like friendly Jawas. | ▶Friendly alien has eye like evil cyclops. |
| ▶Hero: Cale, rebellious space-teen | ▶Hero: Frye, lethargic space-slacker |
| ▶Earth: Blowed Up Good | ▶Earth: Feelin' Fine |


### About the Author

*Cory Herndon, author of* The Official Magic: The Gathering® Starter Guide *and an editor of* TopDeck™ *magazine, is a frequent contributor of game and film columns to* Amazing Stories.

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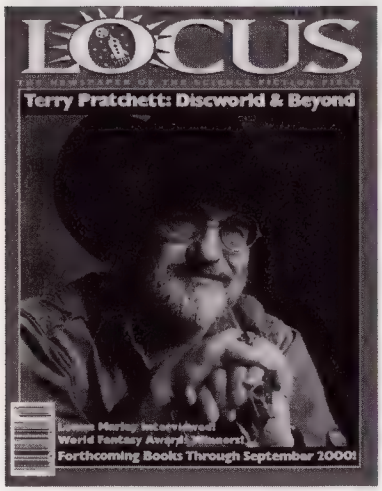


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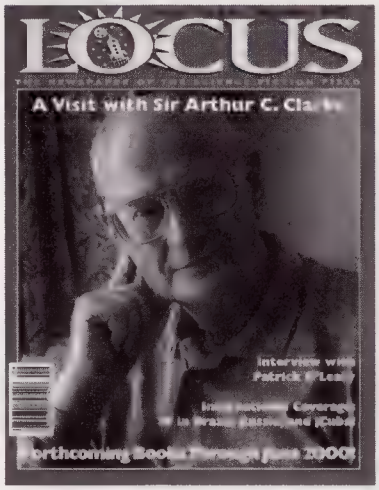


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**GameSpace** by Allen Varney

# A Thinking Fan's Games

## Big Ideas for SF Gaming

During "The Future of Gaming" convention panel at ArmadilloCon in Austin, Texas, you know when the light bulb went on for me? When Aaron Allston, game designer (dozens of *AD&D*® and *Champions* roleplaying supplements, many computer games) turned novelist (*Doc Sidhe*, four *Star Wars: X-Wing* books), elegantly pinpointed why science fiction games are almost always bad science fiction.

Aaron remarked in passing that readers of prose science fiction want a vicarious experience, but gamers want a *simulated* experience.

The Idea Light Bulb that flared over my head highlighted the difference between "surrender to the story" and "find your own path." Reading prose, we identify with a hero who walks a single path through a world shaped by science-fictional Big Ideas. But playing a game, we become heroes ourselves, exploring in all directions through a world shaped for freedom of action. The game designer or gamemaster must conjure new settings fast enough to retain our interest, while keeping them sufficiently familiar that we can sensibly choose an action. A game featuring groundbreaking, rigorous Big-Idea extrapolation would bamboozle us.

Big Ideas can interfere with big fun, big time. Instead, SF games succeed by relying on recognizable props: galactic empires, alien invasions, monstrous mutants, giant robots, cyberpunk implants, magic-box nanotech, and psionics. It works! Seeing a monstrous mutant, we know where we are and what to do.

◀ **Cyberpunk Lives.** *Savvy thinking about genetics, socioeconomics, and politics marks the undeservedly obscure roleplaying supplement* Kromosome.

▲ **Steep Curves Ahead.** *Expect to digest the equivalent of half an SF novel before you start playing* Blue Planet, *or you'll begin, pardon the pun, all at sea.*

Still, we can forgive nongamer SF fans for stifling a yawn. Can't gaming offer *any* settings or notions as original as those in prose science fiction, without apologies?

Yes it can. Try these Big Ideas on for size.

### Worlds on Paper

For imaginative hard-SF world building, the 1997 Biohazard Games paper roleplaying game (RPG) *Blue Planet* stands comparison—no apologies—to Frank Herbert's *Dune*.

In 2078 an Earth probe discovers a wormhole to the Lambda Serpentis system, thirty-five light-years from Earth. Ten years later the United Nations establishes a colony of genetically engineered humans and "genlifted" cetaceans on Poseidon, the system's habitable waterworld. Over the next century, while civilization on Earth collapses, the colony thrives. Now, in 2199, recuperating governments and Incorporate States return to Poseidon to mine the life-prolonging xenosilicate "Long John." Conflict ensues between natives and immigrants, wired Incorporate mercs and pirates, and giant "greater white" eels and everybody. Meanwhile, mysterious "aborigines" deep in Poseidon's ocean pursue inscrutable goals of their own.

This brilliant setting, rigorously faithful to oceanography, ecology,

physics, and economics, illustrates the dilemma of translating hard SF into game terms. Designer Jeffrey Barber develops Poseidon with integrity—even the wormhole and the unlikely DNA-based ecosphere receive careful rationales—but the price is a steep learning curve, especially for newcomers to roleplaying games. Expect to digest the equivalent of half an SF novel before you start playing, or you'll begin, pardon the pun, all at sea. Still, any hard-SF fan will enjoy a voyage to *Blue Planet*.

Savvy thinking about genetics, socioeconomics, and politics marks the undeservedly obscure 1992 roleplaying supplement *Kromosome*, a worldbook for TSR's short-lived *AMAZING Engine* game system. Designer Wolfgang Baur filters cyberpunk tropes through a chemistry set of new designer gene-mods, then sends "microcorporation" player groups into a sophisticated near-future landscape where nations, corporations, and cultures are uneasily arranging a new balance. *Kromosome* couldn't fit much into 128 short pages, but its background should intrigue any SF reader.

For mysterious reasons, SF roleplaying's other true originals build on the tradition of satirists, from Pohl and Kornbluth to Douglas Adams. West End's *Paranoia* (published, appropriately, in 1984) offers a mordant blend of George Orwell, Robert Sheckley, and the Marx Brothers. An insane Computer rules the futuristic underground city of Alpha Complex. ("Trust the Computer! The Computer is your friend!") Players, as Troubleshooters, must root out traitorous mutants and members of secret societies; unfortunately, each player secretly is a mutant *and* a secret society member. In *Paranoia* the "science" is pure Looney Tunes, but for atmosphere and inventiveness this comedy-of-murders outstrips almost everything in written SF. Look for the hilarious 1986 second edition by Greg Costikyan and for early adventures like John M. Ford's *The Yellow Clearance Black Box Blues*.

Other satirical RPGs of remarkable originality include Ray Winninger's seditious superhero dystopia *Underground* (1993) and Robin Laws's butt-kicking Hong Kong action-flick game *Feng Shui* (1996).

Prose fans can also enjoy RPGs that polish established SF ideas with respect and style. A virtuoso new campaign setting for Wizards of the Coast's *ALTERNITY*® roleplaying game (1998), *DARK•MATTER*™, by Wolfgang Baur with Monte Cook, takes its inspiration from the paranoid SF-noir of *The X-Files*.

## GameSpace

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Wizards of the Coast, 1801 Lind Ave. SW,
Renton, WA 98055
<www.wizards.com/alternity>
256-page hardcover *Player's Handbook*, $19.95;
*Gamemaster Guide*, same format, $19.95
Design: Bill Slavicsek and L. Richard Baker

**Blue Planet** *(second edition)*
Fantasy Flight Games, 2021 W. County Rd. C.,
Roseville, MN 55113
<www.rpg.net/ffg>
352-page softcover RPG, $27.95
Design: Jeffrey Barber

**DARK•MATTER**
Wizards of the Coast,1801 Lind Ave. SW,
Renton, WA 98055
<www.wizards.com/darkmatter>
<www.hoffmanninstitute.org>
256-page hardcover campaign setting, $29.95
Design: Wolfgang Baur with Monte Cook

**Delta Green**
Pagan Publishing, 5536 25th Ave. NE,
Seattle, WA 98105-2415
<www.delta-green.com>
304-page softcover campaign setting, $27.95
Design: Adam Scott Glancy

**Feng Shui** *(second edition)*
Atlas Games, P.O. Box 131233, Roseville, MN 55113
<www.atlas-games.com>
224-page hardcover RPG, $30
Design: Robin Laws

**Half-Life**
Sierra On-Line, 3380 146th Place SE, Suite 300,
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<www.sierrastudios.com/games/half-life/bot.html>
First-person action computer game
"Game of the Year" edition, $19.95
Design: Kelly Bailey, Marc Laidlaw,
Harry Teasley, Steve Theodore, Robin Walker

**Netrunner**
Wizards of the Coast,1801 Lind Ave. SW,
Renton, WA 98055
<www.wizards.com/netrunner>
Trading card game for 2 players;
playing time 20+ minutes
120-card starter set, $16.95
Design: Richard Garfield

**Ogre/G.E.V.**
Steve Jackson Games, P.O. Box 18957,
Austin, TX 78760
<www.sjgames.com/ogre>
Board games for 2 players;
playing time 20+ minutes; $14.95
Design: Steve Jackson

**RAMA**
Sierra On-Line, 3380 146th Place SE, Suite 300,
Bellevue, WA 98007
<www.sierra.com>
Computer RPG, $14.95; available from
<www.cdaccess.com/html/quick/ramapj.htm>
*(Not to be confused with the 1985 Telarium*
Rendezvous With Rama *text adventure.)*

**System Shock 2**
Looking Glass Studios/Electronic Arts
<www.lglass.com>
First-person computer RPG, $49.95
Design: Ian Vogel, Scott Blinn, Mike Ryan,
Matt Boynton, Ken Levine

**Tangents**
Wizards of the Coast,1801 Lind Ave. SW,
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<www.wizards.com/alternity>
96-page softcover sourcebook/adventure, $18.95
Design: Bruce Cordell

**Underground**
Mayfair Games, 5211 West 65th Street,
Bedford Park, IL 60638
<www.coolgames.com>
256-page softcover RPG, $24.95
Design: Ray Winninger

**Godsfire** *(second edition)*
Task Force Games, P.O. Box 50145,
Amarillo, TX 79159-0145
<www.task-force-games.com>
Board game for 2-6 players;
playing time 4-6 hours; price varies
Design: Lynn Willis

**Kromosome**
TSR (Wizards of the Coast),
1801 Lind Ave. SW, Renton, WA 98055
<www.wizards.com>
128-page softcover RPG, $12.95
Design: Wolfgang Baur

**Mission Critical**
Legend Entertainment, Chantilly, VA
<www.legendent.com>
Computer RPG; price varies
Design: Mike Verdu

**Paranoia**
West End Games, RR 3 Box 2345,
Honesdale, PA 18431
256-page softcover RPG; price varies
Design *(second edition)*:
Greg Costikyan, with Dan Gelber,
Eric Goldberg, Ken Rolston
*(Other editions not recommended.)*

**StarForce: Alpha Centauri**
Simulations Publications, Inc.
Board wargame for 2-4 players;
playing time 2-12 hours; price varies
Design: Redmond Simonsen

**System Shock**
Looking Glass Technologies
<www.lglass.com>
First-person computer RPG;
price varies
Design: Doug Church

taining, and masterfully spooky world view—MIBs and CIA fleshworms! mothmen and Greys! Aum Shinri Kyo and Rosicrucians!—derives closely from real-world conspiracy theory and Fortean chronicles of weird events.

▲ SHOW ME THE MUSHROOMS!
*Whether you dive into a black hole with a singularity submersible or just step through an old-fashioned alien gate,* Tangents *takes you to dozens of "paraspace" worlds.*

Check out the game's delightful website at <www.hoffmanninstitute.org>, which offers a subtle hint in this deadpan recruiting notice: "Imagine your place in an environment shaped by the power of ideas."

Conspiracy fans should also check out Pagan Publishing's acclaimed 1997 *Call of Cthulhu* roleplaying supplement *Delta Green*, by Adam Scott Glancy, John Tynes, and several co-conspirators. In *Delta Green*, widely considered the finest campaign ever published, government black ops meet Lovecraftian aliens with chillingly believable results. As in the best science fiction, *Delta Green* achieves its effects through uncanny believability. *The X-Files* bad guys are only mysterious white powermongers, but *Delta Green* uses specific American intel firms, like Majestic-12, with timelines, personnel, and—one of the book's highlights—a detailed recipe for creating authentic-looking classified documents. Amid the rundowns of genuine black ops, the machinations of Cthulhu mythos aliens seem almost minor league.

Bruce Cordell's *ALTERNITY* sourcebook/adventure *Tangents* delightfully surveys the SF subgenre of parallel worlds. Whether you dive into a black hole with a singularity submersible, cultivate wormhole-bearing tantalus plants, take quantum mushroom psychedelics, or just step through an old-fashioned alien gate, *Tangents* takes you to dozens of "paraspace" worlds inspired by SF writers from Brian Aldiss to Roger Zelazny. Learn about hyperrealistic creatures, persistent individuals, superspace bleed, and zero-time ghosts; meet the Gleaners of Ishtar and the Latten (mutant vampires that will bring scary memories to fans of Richard Matheson's *I Am Legend*); and visit the tangent where authors are kings and Bruce Cordell got to write *Foucault's Pendulum*. Cool! Show me the mushrooms!

## Ideas on Board (and on Deck)

Many SF board games stress heavy weaponry, not heavy thinking. But some have explored science-fictional ideas about the influence of technology over military strategy. Steve Jackson's classic *Ogre*, named for a fearsome, intelligent cybertank, depicts the future return of armored warfare with the development of biphase carbide armor, which can withstand tactical nukes. Origin Systems' faithful 1985 computer adaptation of *Ogre* is available free on the Web's many sites that preserve "abandonware" (dead computer games). Jackson's 1978 board game sequel *G.E.V.* stars the setting's ground-effect-vehicle hovertanks.

Lynn Willis's sprawling 1977 "monster" board game *Godsfire* offered a highly sophisticated take on interstellar warfare. *Godsfire* closely linked its star wars with star politics; each planetary system's unit production depended on which political party currently held power. After you tracked all those planetary political displays, the battle for military supremacy seemed an afterthought, but *Godsfire* dramatized interstellar logistics in a way most SF writers would envy. At least players didn't have to struggle with that bane of wargames, tall towers of cardboard counters "stacking" together: The setting's faster-than-light drive rips space catastrophically if too many ships gather, a clever rationale for the only stacking limitation ever seen in deep space.

And while you're haunting Web auction sites looking for *Godsfire*, also hunt down Redmond Simonsen's *StarForce: Alpha Centauri*, a similarly inventive 1974 take on stellar warfare. Warning: Like most other SPI wargames, *StarForce* is very complex, especially in its instantaneous "shifting" 3-D movement in a thirty-light-year sphere. Sounds large-scale? Hah! The map of the 1976 sequel, Irad Hardy's *Outreach*, covers two thirds of the Milky Way, and turns last about thirty-five years. It remains the largest-scale game ever published.

That fundamental cyberpunk equation, "information equals power," fuels Richard Garfield's *Netrunner* trading card game. In this intricate, near-future fencing match, the wealthy but painstaking Corporation player sets up data forts guarded by black IC (intrusion countermeasures) to protect secret Agenda cards (Corporate War, Hostile Takeover). To penetrate these, the penurious but fast-moving Runner stealthily marshals hardware (Raven Microcyb Eagle), icebreaker programs (Ramming Piston, Wizard's Book, Shaka), and resources such as Junkyard BBS, Technician Lover, and (raising funds the *hard* way) Organ Donor. One game of Netrunner teaches you, as neatly as a William Gibson novel, how information really means power. (After some downtime, publisher Wizards of the Coast rebooted *Netrunner* support in late 1999 with a new expansion, *Netrunner Classic*.)

Scramble
World Domination
Agenda-Black Ops
Score an additional 4 agenda points when you score World Domination
"So, Wilson, how in the frack did you know the fleet was secret plans for world domination?"
"Cause it was labeled 'Secret Plans for World Domination.'"
Illus. Craig Mooder
Rio de Janeiro City Grid
Upgrade-Region-Random

▲ REBOOTED. *One game of* Netrunner *teaches you, as neatly as a William Gibson novel, how information really means power.*

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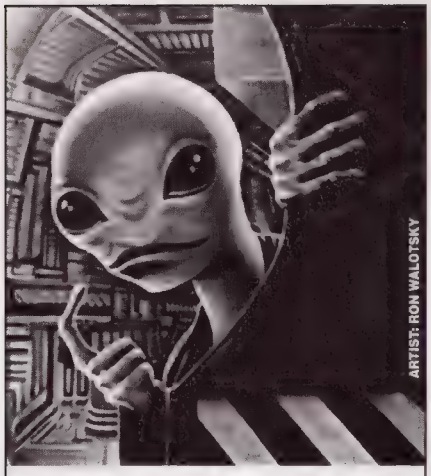


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## Wonder on Screen

SF computer games are long on wonder, but often the wonder is, "Why aren't they more original?" Programmers are often fans themselves, so why don't their games use ideas as more than monitor dressing?

A loaded question deserves a short answer: Sometimes they do. Valve's 1998 hit *Half-Life* has an unusual and immersive alien invasion storyline scripted by SF writer Marc Laidlaw *(The Neon Lotus, Dad's Nuke)*. Other titles with worthy SF content made less impact. Not many gamers discovered Sierra's *RAMA*, a 1997 adaptation of Arthur C. Clarke's famous Rendezvous With Rama; nor Cyberdreams' 1995 *I Have No Mouth and I Must Scream*, based on Harlan Ellison's classic short story. And only devoted hobbyists found Legend's *Mission Critical* (1997). Some 1970s Infocom classics like *Suspended* and *A Mind Forever Voyaging*, despite being text adventures, had interesting—hey! Wake up!

Doug Church's *System Shock*, a revered 1992 computer roleplaying game set in 2072, casts the player as an anonymous hacker fighting the rogue Artificial Intelligence SHODAN aboard the TriOptimum corporation's Citadel Space Station. Telling its backstory entirely through the recorded audiologs of dead characters, *Shock* creates a convincing setting, a spine-tingling atmosphere, and (by computer game standards) a detailed plot.

Set forty years after that initial *Shock*, the 1999 sequel *System Shock 2* makes you a United Nations marine aboard the TriOptimum colony ship *Von Braun*. As in the original, you wake from suspended animation to a ship full of corpses—and mysteries. What's this about a distress beacon from Tau Ceti? Where'd that alien hive-mind, The Many, come from? How did SHODAN come back, aboard the military escort ship *Eddie Rickenbacker*? And why are all these ghosts wandering the corridors?

Both *Shock* games belong among the computer gaming industry's best examples of SF world-building. But they succeed through uniquely creative sidesteps around the limitations of today's computers. Because your PC just can't simulate a convincing, Turing Test-capable nonplayer character, you can't interact with a game's characters in believable ways. The *Shock* games dodge the problem by killing everyone, but you can't pull that trick many times. A lack of strong character interaction makes it harder to explore Big Ideas.

WHICH BRINGS US BACK to where we started. The experience of playing these games—of creeping down the shadowed, believably haunted *Von Braun* corridors, anxiously searching for SHODAN's security cameras—has little to do with ideas.

Of course, the obvious response is that computer games don't need ideas. If you're mulling the plausibility of a speculative extrapolation, your heart isn't pounding with suspense. Ideas obstruct immersion. And, as you will hear from those who started playing *System Shock* one evening and only reentered their physical bodies the next morning, computer games happen to be *spellbindingly good* at immersive experiences. The best games addict you. With such power already—what, me worry?

Actually, though, every game design—even a computer game—embodies ideas, usually invisibly. Take the *SimCity* computer game's traffic model, which designer Will Wright derived from studies of highway congestion. A practical SimCity metropolis requires mass transit, because the more roads you build, the more traffic you create. True, Robert Heinlein's "The Roads Must Roll" examined this idea as early as 1940, but you understand it better by building a city yourself. Similarly, the good SF games here, like the best written science fiction, slip their basic assumptions over on you before you realize it.

Here's a Big Idea to excite us all: May we see many more games like these!

**About the author**

*Allen Varney (APVarney@aol.com) is a writer, game designer, and world traveler based in Austin, Texas. He's currently designing online games for* <www.gameworld.com>.

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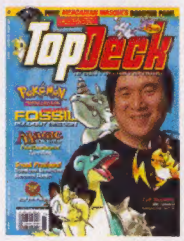


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# Another Fish Story...

The top of the back cover for the December 1947 issue of *AMAZING Stories* magazine states: "Impossible but true." Instead of raining cats and dogs, this painting shows fish raining down from above. Impossible? Well, of course. But true?

At the bottom of the page the author claims there are "hundreds" of documented accounts of fish raining from the sky, although "many of them cannot be explained in a logical manner."

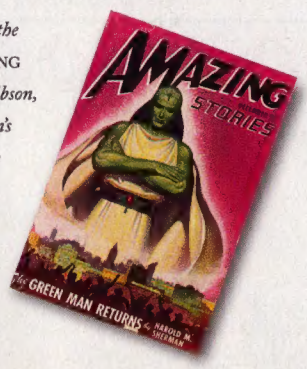
We saw this cover, read the claim, and read that the details of this phenomenon could be found on page 175 of that very issue. Who wouldn't be enticed to go to page 175? We were.

We did. And then, not finding anything remotely resembling such details, we turned to the table of contents to verify that indeed, a feature titled "The Rain of Fish" by Pete Bogg, should have been found on page 175. It wasn't. And it wasn't anywhere else in the book.

Editorial error or joke? We'll never know, but we suspect this is much on the order of advertising a "Spontaneous Human Combustion" article by *Will Byrne*.

IMPOSSIBLE BUT TRUE
THE RAIN OF FISH
There are hundreds of instances on record of a rain of fish from the sky. Many of them cannot be explained away in any logical manner. Details of this mystery appear on page 175

▶ **HE'S BACK.** *The front cover of the December 1947 issue of* AMAZING Stories *is the work of Robert Gibson, illustrating Harold M. Sherman's "The Green Man Returns." The central figure is the Green Man himself, who may look intimidating, but is about to bring peace to a troubled Earth.*



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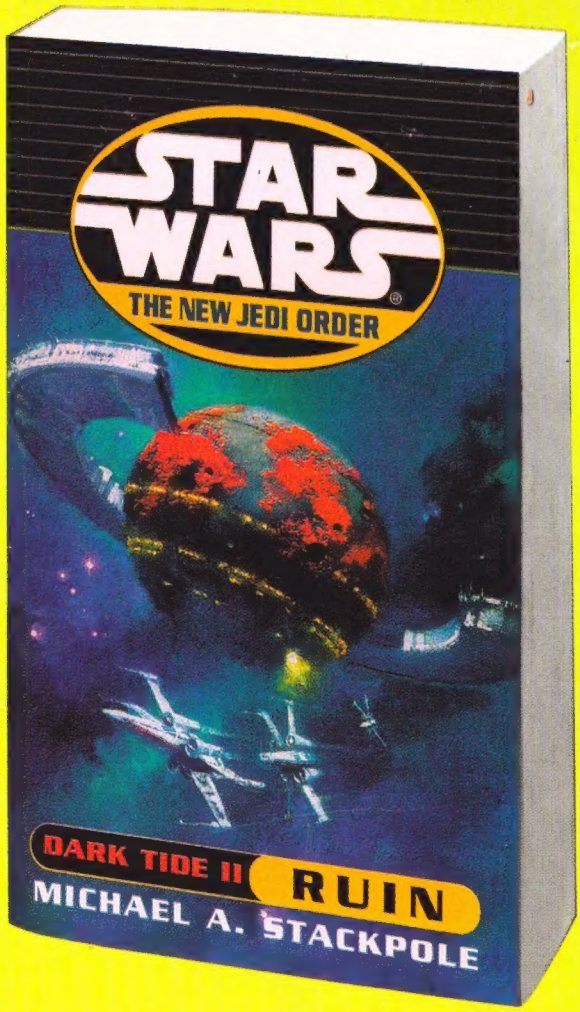


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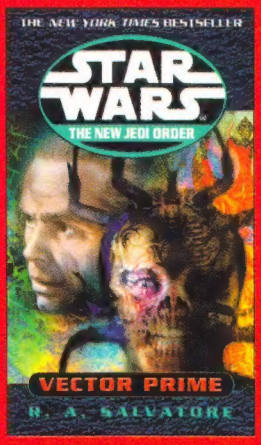


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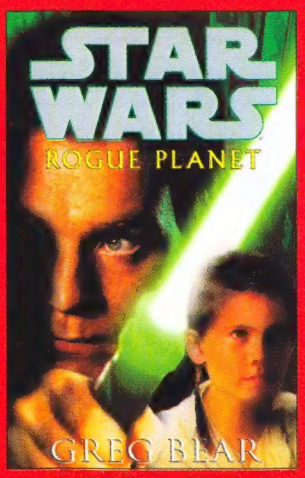


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